Computer Science Education

Department Information

- **Department Head:**
  Simone Ludwig, Ph.D.
- **Graduate Program Coordinator:**
  Saeed Salem, Ph.D.
- **Department Location:**
  258 QBB
- **Department Phone:**
  (701) 231-8562
- **Department Email:**
  gradinfo@cs.ndsu.edu
- **Department Web Site:**
  cs.ndsu.edu/ (http://cs.ndsu.edu/)
- **Credential Offered:**
  Certificate
- **English Proficiency Requirements:**
  TOEFL iBT 79; IELTS 6.5

This certificate is primarily aimed at high school teachers in need of credentials to teach "dual credit" courses in their schools as well as AP Computer Science instructors. To meet the needs of the program the courses must be (1) online; (2) taught in the summer; and (3) taught in a condensed or hybrid format.

The graduate certificate in Computer Science Education is comprised of six 3-credit courses for a total requirement of eighteen credits, aimed at preparing for teaching high school CS. The certificate program will be offered online, all year long as courses are developed. The courses are selected for their content which covers the essential, core concepts of Computer Science, and how to teach them.

Program Objectives:

The Graduate Certificate Program in Computer Science Education will focus on the following:

1. Focus on fundamental topics providing a broad background in Computer Science.
2. Be flexible enough to allow students from varied backgrounds and different points in their working career to enter the program with a minimum of pre-requisite work.
3. Be flexible enough to allow students currently pursuing advanced degrees in computing related disciplines to join the program and readily add the Graduate Certificate to their credentials.
4. Provide the necessary 18 credit hours for high school teaching credentials while presenting a course offering schedule to allow students to complete the program in fifteen months.
5. Make maximum use of existing department resources at NDSU to support delivery of the program.
6. Gain a broad background and knowledge in Computer Science Education through a fixed set of core courses.

Certificate Requirements

Course requirements may be found on the Computer Science department website (https://www.ndsu.edu/cs/graduates/).