The undergraduate Certificate in Computer Programming is a six-course (18 credit hours) program. It is designed to provide a quick yet broad training in technologies leading to secure and interesting careers in technology. A minimum GPA of 2.5 is required for admission. A minimum of four courses must be taken in residence at UMSL. Courses may be substituted with the permission of the program director.

For more information, contact the department chair or email info@arch.msl.edu.

**UMSL|NOW**: Certificate can be completed in the evening.

Potential specializations choosing electives based on interest of Math:
- **Math**: Cmp Sci 2700 and 2750 – Linux, systems programming
- **Cmp Sci**: Cmp Sci 4011 and 4610 – Internet client side
- **Cmp Sci**: Cmp Sci 4010 and 4610 – Internet server side
- **Cmp Sci**: Cmp Sci 4020 and 4222 – iOS apps
- **Cmp Sci**: Cmp Sci 4010 and 4020 – Android development
- **Cmp Sci**: Cmp Sci 3130 and another unlisted AI elective – AI, deep learning, etc.

Students with an introductory programming background, but without 1250 transferred in, can request to start with 2250. They will have 1250 credited upon successful completion of 2250 and they can also request to register for 2700 concurrently with 2250.

1250 and 2250 can be taken in one semester as a combo course (one after another in half semesters).