

# COMMUNICATION NETWORKS CERTIFICATE

Department of Computer Science, College of Information Science & Technology

## Vision Statement

The communication network certificate program is a career program designed to meet the growing industry demand for qualified, highly trained individuals in the field of computer network systems. The certificate is designed to give the working professional both a conceptual view and an in-depth understanding of the latest technologies. The program includes courses ranging from basic concepts such as local area networks to advanced networking concepts such as mobile wireless communication systems and networks.

## Program Contact Information

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Program Website (<https://www.unomaha.edu/college-of-information-science-and-technology/academics/degrees-programs.php>)

## Admissions

General Application Requirements and Admission Criteria (<http://catalog.unomaha.edu/graduate/admission/>)

## Program-Specific Requirements

### Application Deadlines (Spring 2024, Summer 2024, and Fall 2024)

- Fall: July 1
- Spring: November 1
- Summer: March 1

## Other Requirements

- **English Language Proficiency:** Applicants are required to have a command of oral and written English. Those who do not hold a baccalaureate or other advanced degree from the United States, **OR** a baccalaureate or other advanced degree from a predetermined country on the waiver list (<https://www.unomaha.edu/graduate-studies/prospective-students/Proof%20of%20English%20Proficiency-%20International.pdf>), must meet the minimum language proficiency score requirement in order to be considered for admission.
  - Internet-based TOEFL: 80, IELTS: 6.5, PTE: 53, Duolingo: 110
- **Resume:** Submit a resume detailing your work experience and background (if applicable).

## Degree Requirements

### Provisional Admission

Students who have not taken an undergraduate data structures course or an introductory communication networks course with a grade of "B-" or

better in each course must do so before they will be allowed to continue in the program.

| Code           | Title                                  | Credits |
|----------------|--|---------|
| CSCI 3320/8325 | DATA STRUCTURES (or equivalent)        | 3       |
| CSCI 3550/8555 | COMMUNICATION NETWORKS (or equivalent) | 3       |

| Code   | Title                                   | Credits |
|--|---|---------|
| <b>Required Courses</b>  |   |         |
| If a required course is waived, it must be replaced with another course from the electives listed below. |   |         |
| CSCI 8210  | ADVANCED COMMUNICATIONS NETWORKS        | 3       |
| CSCI 8620  | MOBILE COMPUTING AND WIRELESS NETWORKS  | 3       |
| <b>Electives</b>   |   |         |
| Select two of the following:   |   |         |
| CSCI 8040  | LARGE SCALE NETWORK ANALYSIS ALGORITHMS | 6       |
| CSCI 8156  | GRAPH THEORY & APPLICATIONS             |         |
| CSCI 8610  | FAULT TOLERANT DISTRIBUTED SYSTEMS      |         |

**Total Credits** **12**

## Completion of the Certificate

During what is expected to be the semester the certificate is completed and prior to the posted deadline, students should apply for the certificate through MavLINK on or before the deadline. Information can be found here (<http://www.ses.unomaha.edu/registrar/graduate.php>). If you complete the application form and do not complete all of the requirements for the certificate, contact the Office of Graduate Studies as soon as possible. You must reapply during the next semester in which you expect to complete the certificate; no additional fee is charged to reactivate your application.

The following requirements are due 12 working days prior to commencement:

- "Incomplete" and "NR" grades from previous terms must be removed so that the grade will be in the Office of Graduate Studies.
- All fees, fines, and other obligations due the university must be settled.

For students currently enrolled in courses that are a part of their plan of study, enrollment must be maintained in order to complete the certificate. A grade for any current enrollment must be received by the Registrar's Office no later than the close of business on the fifteenth working day following the end of a semester.

## Awarding of Graduate Certificates

The Office of Graduate Studies will mail the certificate to students when all requirements are completed and all obligations to the university are satisfied. The Graduate College will not approve any changes in the student's permanent record once the certificate is awarded.