UNMC offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in a variety of fields that span the biomedical sciences, nursing and public health. Although UNMC Graduate Studies administers these programs, the degrees are conferred by the University of Nebraska Graduate College. MS and PhD students at UNMC are trained by nationally- and internationally-recognized faculty in the Colleges of Allied Health Professions, Dentistry, Medicine, Nursing, Pharmacy, and Public Health, as well as the Munroe-Meyer Institute for Genetics & Rehabilitation and the Eppley Institute for Research in Cancer & Allied Diseases.

Most of the graduate programs at UNMC entail face-to-face and hands-on learning, although online options exist for a few programs. Training includes core courses, research courses, and usually a culminating project resulting in a thesis or dissertation. In most cases, an MS degree is not required for enrollment in the PhD programs offered at UNMC.