

# DENTAL ASSISTING DIPLOMA - 48 CREDITS

## About this program

The Dental Assisting program provides the knowledge necessary for the dental assistant to assist in performing general clinical assisting and support functions, intra-oral clinical procedures, business office procedures and laboratory tasks. The curriculum includes content in general studies; biomedical, dental and clinical sciences; clinical practice; and additional intra-oral clinical functions. Certain biomedical and dental science courses offered in the curriculum are common to both Dental Assisting and Dental Hygiene majors. Graduates are eligible to write the Dental Assisting National Board Certification Exam and the Minnesota State Board of Dentistry Registration Exam.

## Program outcomes

1. Apply current concepts of infection control and occupational safety.
2. Perform entry-level dental assisting skills.
3. Interact effectively with patients, peers and the dental health team.
4. Utilize current technology relevant to the dental profession.
5. Apply knowledge of basic sciences.
6. Apply principles of clinical assisting for expanded function procedures in dentistry.

## Employment

The demand for dental care will continue to grow. Due to the success of preventive dentistry in reducing the incidence of dental disease, the growing older population will retain their teeth longer, and will be even more aware of the importance of regular dental care. Dentists will need to employ more dental assistants than ever before to meet the increased demand for dental care. There are more than 200,000 active dental assistants in the U.S. today. According to the Occupational Outlook Handbook, published by the U.S. Department of Labor's Bureau of Labor Statistics, careers requiring a specialized diploma are projected to add significant numbers of employment opportunities for dental assistants by 2005. Most areas of the country are currently reporting shortages of dental assistants. The majority of dental assistants are employed by general dentists. Additionally, dental specialists (e.g. orthodontists, oral / maxillofacial surgeons) employ dental assistants. The majority of graduates are employed as clinical assistants and many states require specialized credentials as an employment criteria. In addition to private practices, dental assistants may seek employment with public health / government clinics, military dental services, dental schools, allied dental education programs, retail / wholesale dental industry, insurance and consulting companies. Since many dentists employ two or three dental assistants, employment opportunities in this field are excellent. There is a great deal of stability and employment security for individuals that are interested in becoming a dental assistant.

## Curriculum overview

<b>Crds</b>	<b>Requirement type</b>
48	Required courses
48	<b>Total</b>

**Developmental courses note:** A student may be required to enroll in developmental courses in reading, writing and math. A student's scores on the Accuplacer assessment will determine enrollment in developmental courses. The purpose of developmental courses is to prepare students for the demands of a college-level curriculum. *Credits may vary.*

**Accreditation:** Minnesota State Community and Technical College is accredited by the Higher Learning Commission, a regional accreditation agency recognized by the U.S. Department of Education. More information can be found at [www.minnesota.edu/accreditation](http://www.minnesota.edu/accreditation).



# Curriculum requirement details

## Required courses

## Other requirements or restricted electives

Course	Crds
BIOL2260 - Human Anatomy and Physiology I .....	3
DENT1100 - Biomaterials .....	3
DENT1102 - Dental Anatomy .....	2
DENT1103 - Introduction for Dental Health Care Providers .....	2
DENT1104 - Dental Health Care Providers II .....	1
DENT1106 - Dental Radiology Lecture .....	3
DENT1122 - Dental Ethics and Jurisprudence .....	1
DNAS1103 - Clinical Assisting I .....	6
DNAS1105 - Clinical Assisting II .....	5
DNAS1106 - Biodental Science .....	3
DNAS1114 - Dental Practice Management .....	2
DNAS1119 - Advanced Functions .....	5
DNAS1144 - Dental Assisting Clinical Affiliations .....	6
DNAS1210 - Dental Assisting Radiology Lab I .....	1
DNAS1212 - Dental Assisting Radiology Lab II .....	1
DNAS1215 - Dental Specialties .....	1
ENGL1101 - College Writing .....	3

## Course summaries

### **BIOL2260 - Human Anatomy and Physiology I** ..... (3 credits)

Meets MnTC Goal Area 3. This course is a comprehensive introductory overview of human anatomy and physiology that includes basic fundamental concepts of cell biology, tissues and organs making up the integumentary, skeletal, muscular and nervous systems. It is the first of a two-semester sequence in which anatomy and physiology are studied with an emphasis on structure and functions of systems. This course contains a lab-like component.

#### **Prerequisites:**

- Assessment into ENGL 1101 or college level writing equivalent.

### **DENT1100 - Biomaterials** ..... (3 credits)

This is a foundation course that provides in-depth instruction and practice in identifying the materials and their purposes and properties as they are used during chairside and laboratory procedures. Material manipulation is a critical requirement of the lab component of this course. Laboratory safety measures and infection control are emphasized.

### **DENT1102 - Dental Anatomy** ..... (2 credits)

The lecture portion of the course introduces the student to basic terminology for understanding the structures that form the foundation for tooth function, normal anatomy of the oral cavity, and tooth and root morphology. Special topics include survey of dental anomalies and forensic dentistry.

### **DENT1103 - Introduction for Dental Health Care Providers** ..... (2 credits)

The student will be introduced to fundamental knowledge required in the practice of dentistry. Topics to be covered include blood-borne pathogens, concepts and procedures of infection control, medical emergencies, first aid in the dental setting and patient privacy rights.

### **DENT1104 - Dental Health Care Providers II** ..... (1 credits)

This course will build on student learning in Introduction to Healthcare Providers I. Students will be challenged to go beyond definitions and practices and understand the what, why and how of blood-borne pathogens, concepts, standards and procedures of infection control, medical emergencies, first aid in the dental setting and patient privacy rights.

### **DENT1106 - Dental Radiology Lecture** ..... (3 credits)

This course includes an overview of the history of x-ray development and a review of basic mathematics and radiation physics as they apply to x-ray production. Radiographic film and digital image quality are explored. Explanation of darkroom chemistry, radiation asepsis and safety are covered. Other topics include interpretation of normal anatomy, dental film and digital image analysis, radiographic interpretation and evaluation, and quality assurance issues.

### **DENT1122 - Dental Ethics and Jurisprudence** ..... (1 credits)

This course focuses on the ethical and legal implications of providing dental, dental assisting and dental hygiene care. The practice acts for Minnesota and North Dakota will also be studied.

### **DNAS1103 - Clinical Assisting I** ..... (6 credits)

This course includes an orientation to the history of dentistry, educational requirements, credentialing opportunities and professional associations for dental and allied dental careers. The student is provided with instruction in the use of dental equipment, instruments and supplies; principles of four-handed dentistry; concepts of infection control and instrument recirculation; management of medical and dental emergencies; and procedures related to oral diagnosis, preventive dentistry and restorative dentistry.

### **DNAS1105 - Clinical Assisting II** ..... (5 credits)

Dental assisting students apply skills in a clinical setting. This course prepares the student to adapt chairside skills to assist with dental specialties as they are performed in the general practice. Students will apply skills developed in Dental Anatomy, Biomaterials, Biodental Science and Dental Practice Management as they apply to the practice of dental assisting.

#### **Prerequisites:**

- DNAS1103

### **DNAS1106 - Biodental Science** ..... (3 credits)

This course provides an introduction to anatomy and physiology, an introduction to dental histology, embryology and an overview of head and neck anatomy using the universal charting system. This course also is designed to give the student a basic concept of microbiology and disease transmission and a survey of oral pathology and pharmacology. The student will be introduced to the basic concepts of nutrition in the dental profession.

### **DNAS1114 - Dental Practice Management** ..... (2 credits)

This course provides the student with instruction in the principles and applications that are related to the management of a dental office. Emphasis is placed on managing patient records through computer-generated charting, financial records, third-party payments, appointment scheduling, inventory and recall systems.

**DNAS1119 - Advanced Functions** ..... (5 credits)

This course is designed to provide the student with instruction and practice to perform the clinical competency in the following intra-oral functions approved by the Minnesota Board of Dentistry: taking radiographic exposures, performing mechanical polishing, taking preliminary impressions and bite registrations, applying topical fluoride, placing and removing periodontal dressing, removing excess cement, monitoring nitrous oxide-induced patients, induction of nitrous oxide/oxygen sedation, removing excess bond from orthodontic appliances with rotary instruments and applying pit and fissure sealants. In addition the following intra-oral functions are taught and practiced to laboratory competency: removing sutures, preliminary adaptation of temporary (provisional) crowns, performing selected orthodontic functions, applying bleaching agents and performing approved endodontic procedures.

**Prerequisites:**

- DNAS1103

**DNAS1144 - Dental Assisting Clinical Affiliations** ..... (6 credits)

This is a faculty-supervised course at extramural sites with dentists and dental auxiliaries providing ancillary supervision. The student will be provided with clinical experiences by affiliations in general dentistry and/or specialized practices. Emphasis is on professionalism in performing general chairside and advanced intraoral procedures.

**Prerequisites:**

- Acceptance into the dental assisting program.

**DNAS1210 - Dental Assisting Radiology Lab I** ..... (1 credits)

Dental Assisting students will be introduced to techniques and processes for exposing digital full mouth series and extra-oral digital radiographs on skulls, manikins and patients. Students will utilize these techniques and processes to expose digital radiographs and evaluate them for diagnostic value according to M State Dental Criteria for Radiographic Acceptability.

**Corequisites:**

- DENT1106

**DNAS1212 - Dental Assisting Radiology Lab II** ..... (1 credits)

Dental Assisting students will expose digital full mouth series and extra-oral digital radiographs on patients. Lab sessions will allow students to further develop radiographic skills and enhance proficiency in radiographic techniques and evaluation.

**Prerequisites:**

- DNAS1210

**DNAS1215 - Dental Specialties** ..... (1 credits)

This course introduces the student to the dental specialties of pediatric dentistry, periodontics, oral and maxillofacial surgery, endodontics, orthodontics and prosthodontics, both fixed and removable. This course will provide the student with an introduction to the clinical procedures with each of the specialties listed. Students will research various dental assisting specialties by interviewing dental assistants in specialty practices.

**ENGL1101 - College Writing** ..... (3 credits)

Meets MnTC Goal Area 1. This is an introductory writing course designed to prepare students for later college and career writing. The course focuses on developing fluency through a process approach, with particular emphasis on revision. Students will consider purpose and audience, read and discuss writing and further develop their own writing processes through successive revisions to produce polished drafts. Course work will include an introduction to argumentative writing, writing from academic sources and a short research project.

**Prerequisites:**

- Completion of ELL1080, ENGL0096, or ENGL0097 with a grade of C or higher OR placement into college-level English.

# DENTAL ASSISTING DIPLOMA - 48 CREDITS

## Program Plan — "Primary"

Locations: Moorhead

### 1st Fall Term (17 credits)

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#### Courses

Course	Crds
DENT1100 - Biomaterials .....	3
DENT1104 - Dental Health Care Providers II .....	1
DENT1106 - Dental Radiology Lecture .....	3
DNAS1103 - Clinical Assisting I .....	6
DNAS1106 - Biodental Science .....	3
DNAS1210 - Dental Assisting Radiology Lab I .....	1

### 1st Spring Term (15 credits)

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#### Courses

Course	Crds
DENT1122 - Dental Ethics and Jurisprudence .....	1
DNAS1105 - Clinical Assisting II .....	5
DNAS1114 - Dental Practice Management .....	2
DNAS1119 - Advanced Functions .....	5
DNAS1212 - Dental Assisting Radiology Lab II .....	1
DNAS1215 - Dental Specialties .....	1

### 1st Summer Term (10 credits)

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#### Courses

Course	Crds
BIOL2260 - Human Anatomy and Physiology I .....	3
DENT1102 - Dental Anatomy .....	2
DENT1103 - Introduction for Dental Health Care Providers .....	2
ENGL1101 - College Writing .....	3

### 2nd Summer Term (6 credits)

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#### Courses

Course	Crds
DNAS1144 - Dental Assisting Clinical Affiliations .....	6