

MASTER OF SCIENCE IN DENTAL HYGIENE
Information Guide

**DIVISION OF DENTAL HYGIENE
SCHOOL OF DENTISTRY
UNIVERSITY OF MINNESOTA
2023-2024**



MASTER OF SCIENCE IN DENTAL HYGIENE

Program Description:

The Master of Science in Dental Hygiene professional program provides dental hygienists who wish to pursue a graduate program with a choice of three tracks: **management**, **dental hygiene education-thesis**, and **dental hygiene education-capstone**.

Program Overview:

The Master of Science in Dental Hygiene program prepares leaders in the profession for careers in academia, the healthcare industry, and research.

Courses in the **management track** provide students with the knowledge and skills necessary for positions in healthcare organizations such as sales representatives and managers of marketing and professional relations divisions, managers of large dental clinics, practice management consulting, and entrepreneurship. This track is offered online, however, there are on-campus courses for students who prefer face-to-face.

Courses in the **dental hygiene education track (capstone and thesis track plans)** provide students with the knowledge and skills to teach didactic, clinic, and laboratory courses in dental hygiene programs; conduct research; and assume administrative positions. This track is offered online. One two-week on-campus visit is required during the first Summer semester of the program.

Core Curriculum (12 cr.): Students in both the **Management** and **Dental Hygiene Education Tracks** take the following core courses:

- DH 5401 Research Methods in Health Sciences (3 cr.)
- DH 5407 Instructional Strategies for Effective Teaching (2 cr.)
- DH 5411 Administrative Leadership and Professional Development (2 cr.)
- DH 5421 Oral Health Care Policy and Funding Strategies (2cr.)
- Epsy 5261 Introduction to Statistical Methods (3 cr.)

MANAGEMENT TRACK CURRICULUM:

Required Curriculum: (9 cr.):

- MBA 6031 Financial Accounting (3 cr.)
- MBA 6211 Marketing Management (3 cr.)

- MBA 6221 Supply Chain and Operations (3 cr.)

Plan A (16 cr.):

- DH 8777 Masters Thesis (10 cr.)
- MBA Elective(s) (6 cr.)

Plan C (18 cr.):

- DH 5201 Management Internship (5 cr.)
- DH 5203 Capstone (3 cr.)
- MBA Elective(s) (10 cr.)

Electives Curriculum: Chosen from the following courses (not an inclusive list): See Carlson School of Management for more course offerings.

- ENTR 6025 Business Formation (2 cr.)
- MBA 6301 Strategic Management (3 cr.)
- MILI 6235 Pharmaceutical Industry: Business and Policy (2 cr.)
- MKTG 6051 Marketing Research (2 cr.)
- MILI 6562 Information Technology in Healthcare (2 cr.)
- MILI 6985 The Healthcare Marketplace (2 cr.)
- HRIR 6031 Staff Training and Development (4 cr.)

Required: Thesis or Internship and Capstone: Students complete either: 1) a research study and thesis with additional MBA elective courses equaling six credits; or 2) an internship and capstone project with additional MBA elective courses equaling ten credits.

DENTAL HYGIENE EDUCATION TRACK

Required Curriculum: (12 cr.)

- DH 5403 The Discipline of Dental Hygiene (2 cr.)
- DH 5405 Curriculum and Course Development (2 cr.)
- DH 5409 Dental Hygiene Clinic Administration (2 cr.)
- DH 5413 Dental Hygiene Supervised Clinical Student Teaching (4 cr.)
- DH 5415 Dental Hygiene Supervised Didactic Student Teaching (2 cr.)

THESIS TRACK (Plan A)

Required Thesis (10 cr.):

- DH 8777/002 Thesis I: Literature Review I (2 cr.)
- DH 8777/004 Thesis II: Study Methodology (3 cr.)
- DH 8777/005 Thesis III: Implementation & Data Analysis (2 cr.)
- DH 8770/006 Thesis IV: Dissemination (3 cr.)

Proposal Approval and Final Oral Examination:

- Thesis Proposal Approval
- Final Oral Examination

CAPSTONE TRACK (Plan C)

Required Capstone (8 cr.):

- DH 5203/001 Capstone I (2 cr.)
- DH 5203/002 Capstone II (2 cr.)
- DH 5203/003 Capstone III (2 cr.)
- DH 5203/004 Capstone IV (2 cr.)

ADMISSIONS:

Materials must be submitted by June 1, 2023, for the class beginning Fall (September) semester 2023.

ADMISSION REQUIREMENTS:

- Completion of a baccalaureate or associate degree in dental hygiene from an accredited U.S. institution or foreign equivalent. If the applicant has graduated from an associate degree dental hygiene program, s/he must also have a baccalaureate degree from an accredited U.S. institution.
- Currently licensed as a dental hygienist in any US state.
- Applicants who have not completed an undergraduate statistics course **must do so prior to matriculation** or prior to taking the required statistics course.
- Minimum of a 3.0 grade point average.
- **Management Track Only:** Applicants must take either the Graduate Management Assessment Test (GMAT) with a minimum score of 500 required OR the Graduate Record Examinations (GRE) with a minimum quantitative score of 153 and a minimum verbal of 150.

Application:

- Applications for Fall 2023 admissions are due June 1, 2023.
Applicants apply online via the University of Minnesota Graduate School. Link to application can be found at: <https://www.grad.umn.edu/admissions/applicationinstructions>
- Upon acceptance, a \$75.00 non-refundable placement fee is required.

Application materials:

- Computer-generated essay to include short and long-term goals and an explanation of why an advanced degree is of interest and why he/she merits serious consideration
- Current resume including dental hygiene clinical practice and/or management experience.
- Three letters of reference from persons qualified to evaluate the applicant's recent work and potential for success in a professional graduate program.
- Official transcripts of all previous/current academic work from all institutions
- Copies of dental hygiene license, CPR level C certification, and immunization status will also be required upon matriculation.
- A phone interview with members of the MSDH Admissions and Progression Committee may be requested.

Financial Aid:

- Federal financial aid loans are available.

Tuition/Fees:

Tuition: Tuition and Fees are as follows:
\$1044.00 per credit (2022-2023)

Education track is 32-34 credits; Management track is 36-39 credits

*Please note that all MSDH students pay **resident** tuition rates.

Fees:*

*Please go to www.onestop.umn.edu for a complete listing of University and School of Dentistry fees.

CORE COURSE DESCRIPTIONS

Core Curriculum: (12 credits) Students in both the management and dental hygiene education tracks will participate in the following four core courses.

- **DH 5401 Research Methods in Health Sciences** (3 cr.) Develop skills in the scientific method and analysis of research findings; emphasis placed on types of research, problem selection, hypothesis writing, research planning and design, data collection and measuring techniques, analysis and interpretation of data, ethics in research, and writing the research proposal.
- **DH 5407 Instructional Strategies for Effective Teaching** (2 cr.) Application of principles of learning, learning styles, teaching styles, and instructional strategies; using a variety of instructional strategies.
- **DH 5411 Administrative Leadership and Professional Development** (2 cr.) Application of leadership theory and models of administrative roles in education, healthcare, research, and corporate settings. Study of education and organization culture, strategic planning, human resource

management, and grantsmanship. Emphasis on professional development and advancement.

- **DH 5421 Oral Health Care Policy and Funding Strategies (2 cr.)** An introduction to oral health care policy, advocacy, and program funding through grant writing. Evaluate current health care policy, propose improved health care delivery systems, and grant writing fundamentals for evidence-based program implementation.
- **Epsy 5261 Introductory Statistical Methods (3 cr.)** Application of statistical concepts/procedures. Graphs, numerical summaries. Normal distribution, correlation/regression analyses, probability, and statistical inferences for one or two samples. Hypothesis tests, Chi-square tests. Conceptual understanding/application of statistics.

CURRICULUM

Management Track: In addition to the above core courses, management track students will complete the following required courses.

- **MBA 6031 Financial Accounting (3 cr.)** Basic principles of financial accounting involving the consecution/interpretation of corporate financial statements.
- **MBA 6211 Marketing Management (3 cr.)** Management of marketing function; understanding the basic foundational marketing concepts and skills in strategy development and planning of operational and strategic levels pertaining to product offering decisions, distribution channels, pricing, and communication.
- **MBA 6221 Operations Management (3 cr.)** Introduction to fundamental operations, management principles, and concepts. The course takes a strategic view of operations in both a manufacturing and service context and stresses linkages to other functional areas. Many of the cases in the course take an international perspective.

Electives (8-9 cr.): more elective courses can be found at www.csom.umn.edu/mba:

- ENTR 6025 Business Formation (2 cr.)
- MBA 6301 Strategic Management (3 cr.)
- MGMT 6004 Negotiation Strategies (2 cr.)
- IDSC 6040 Information Technology Management (2 cr.)

Management Track Elective Course Descriptions (not an inclusive list)

- **ENTR 6025 Introduction to Entrepreneurship (2 credits)** The course helps students develop insights on starting and sustaining a successful venture. The course focus is on opportunity identification and evaluation: Where do new venture ideas come from? How do you recognize a good business idea? How can a so-so idea be improved to be a good opportunity? Students will

focus on five characteristics of a good entrepreneurial opportunity: Creating significant customer value, profit potential, profit durability, founder and team fit, and amenability to financing.

- **MBA 6301 Strategic Management (3 credits)** Introduction to the concepts and techniques used to create and implement a sense of corporate direction; choices about products and markets that involve the integration of different functional areas; positioning a business to increase returns for shareholders and stakeholders; the skills involved in identifying issues, evaluating options, and implementing business plans.
- **MGMT 6004 (2 credits)** Art/science of securing agreements between two or more parties who are interdependent and seek to maximize their own outcomes. Individual, group, and organizational behavior. Theory/process of negotiations applied to problems faced by managers/professionals.
- **IDSC 6040 (2 credits)** Management of information systems, information technology (IT) in global organization. Strategic uses of IT. Alignment of IT, organizational strategy, internet/Web technologies, and e-commerce customer services. Integration of e-business applications, inter-organizational systems, and systems implementation. Management of information as a resource. Lecture, case analysis, classroom discussion.

CURRICULUM

Education Track: (22 cr.) In addition to the core curriculum courses described on page 5, dental hygiene education track students will participate in the following courses:

- **DH 5403 The Discipline of Dental Hygiene (2 cr.)** will ensure that students' dental hygiene practice is grounded in science and guided by research evidence; etiology, prevention, and treatment related to dental caries, periodontal diseases, oral cancer and other conditions; and, advances in technology.
 - **DH 5405 Curriculum and Course Development (2 cr.)** will prepare students for curriculum and course development and management, competency-based education and outcomes assessment, and the role of accreditation in dental hygiene education. Students will develop a competency-based dental hygiene curriculum and a dental hygiene course.
 - **DH 5409 Dental Hygiene Clinic Administration (2 cr.)** will prepare students for the administration of a dental hygiene clinic and the development of dental hygiene clinic courses, policies and procedures, evaluation mechanisms including OSCEs and standardized patients, and case-based instruction.
 - **DH 5413 Dental Hygiene Supervised Clinical Student Teaching (4 cr.)** will prepare students to teach psychomotor skills in a clinic setting; observation and participation in selected supervised teaching experiences.
 - **DH 5415 Dental Hygiene Supervised Didactic Student Teaching (2 cr.)** Observation and participation in supervised teaching experience in dental hygiene education under faculty mentorship.
- DH 8777, sections 002, 004, 005, and 006 Thesis Credits (10 cr.)** A series of

four courses. Directed research toward completion of thesis. Students will complete 10 thesis credits and a research project under the supervision of an advisor and examining committee, write, and defend a thesis in a final oral examination. Students will be required to submit a manuscript based on their theses, approved by the students' advisors, as one or more manuscripts into refereed journal, and submit a poster presentation abstract to be presented at a professional meeting. A final oral examination covering the thesis will be administered at the end of the students' academic program, registration for thesis and satisfactory completion of all course work. The final oral examination will be administered by the student's thesis committee.

Students will chose either the Thesis-Track or Capstone-Track:

- **DH 8777, sections 002, 004, 005, and 006 Thesis Credits (10 cr.)** A series of four courses. Directed research toward completion of thesis. Students will complete 10 thesis credits and a research project under the supervision of an advisor and examining committee, write, and defend a thesis in a final oral examination. Students will be required to submit a manuscript based on their theses, approved by the students' advisors, as one or more manuscripts into refereed journal, and submit a poster presentation abstract to be presented at a professional meeting. A final oral examination covering the thesis will be administered at the end of the students' academic program, registration for thesis and satisfactory completion of all course work. The final oral examination will be administered by the student's thesis committee.

OR

- **DH 5203, sections 001, 002, 003, and 004 Capstone Credits (8 cr.)** A series of four courses. Directed applied research toward the completion of a capstone project. Students will complete 8 capstone credits and an applied research project under the supervision of an advisor, write a manuscript, and complete a capstone presentation. Students will be encouraged to submit their capstone manuscript to a refereed journal and submit a poster presentation abstract to be presented at a professional meeting. A capstone presentation covering the capstone will occur at the end of the student's academic program and satisfactory completion of all coursework.

REQUIRED THESIS

DH 8777 (section 002) Thesis I: Literature Review

This course is the first in a series of courses focused on the development of an original research project for the thesis. The purpose of this course is to provide students with the knowledge and skills to successfully review the literature on a chosen research topic, develop a research question, and write a focused review of the literature review.

DH 8777 (section 004) Thesis II: Study Methodology

This course is the second in a series of four courses designed to assist the student in conducting a thesis research project. The focus of this course is the completion of a research proposal that will serve as a roadmap for carrying out the proposed research. Students will complete CITI training.

DH 8777 (section 005) Thesis III: Implementation and Data Analysis

This course is third in a series of four courses culminating in a written thesis. The focus of this course is implementing research, data management, and analysis.

DH 8777 (section 006) Thesis IV: Dissemination

The final course in the thesis course series focuses on the completion of the written thesis, oral defense and preparation of a publishable manuscript.

REQUIRED Capstone**DH 5203 (section 001) Capstone 1**

This course is the first in a series of courses focused on the development of an original applied research project for the capstone. The purpose of this course is to provide students with the knowledge and skills to successfully review the literature on a chosen research topic, develop a research question, and write a focused review of the literature review.

DH 5203 (section 002) Capstone 2

This course is the second in a series of four courses designed to assist the student in a capstone research project and implementation. The focus of this course is the completion of a capstone proposal that will serve as a roadmap for carrying out the proposed research. Students will complete CITI training and will start with capstone project implementation.

DH 5203 (section 003) Capstone 3

This course is the third in a series of four courses culminating in the capstone project. The focus of this course is implementing the project, data management, and analysis.

DH 5203 (section 004) Capstone 4

The final course in the capstone course series focuses on the completion of the written manuscript, oral presentation, and preparation of the publishable manuscript submission.

FOR MORE INFORMATION**School of Dentistry Website**

<http://www.dentistry.umn.edu>

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MSDH CURRICULUM EDUCATION TRACK (online)

Year 1						Year 2				
Fall Semester		Spring Semester		Summer Semester		Fall Semester		Spring Semester		Summer Semester
DH 5403 The Discipline of Dental Hygiene (2 cr.) (6 weeks)	DH 5401 Research Methods in Health Science (3 cr.) (CORE) (10 weeks)	DH 5405 Curriculum and Course Development (2 cr.) (8 weeks)	DH 5407 Instructional Strategies for Effective Teaching (2 cr.) (CORE) (8 weeks)	DH 5415 Didactic Student Teaching (1 cr.) (8 weeks)	DH 5413 Supervised Clinical Student Teaching (3 cr.) (8 weeks)	DH 5409 Dental Hygiene Clinic Administration (2 cr.) (8 weeks)	DH 5421 Oral Health Care Policy and Funding Strategies (2 cr.) (CORE) (8 weeks)	DH 5411 Administrative Leadership and Professional Development (2 cr.) (CORE) (8 weeks)		
EPsy 5261 Introduction to Statistical Methods (3 cr.) (CORE)		DH 8777 (section 002) Thesis I: Literature Review (2 cr.) (15-16 weeks)		DH 8777 (section 004) Thesis II: Study Methodology (3 cr.) (15-16 weeks)		DH 8777 (section 005) Thesis III: Implementation and Data Analysis (2 cr.) (15-16 weeks)		DH 8777 (section 006) Thesis IV: Dissemination (3 cr.) (15-16 weeks)		DH 7000 Independent Study: Continuation of Thesis/Capstone Work (1cr/semester) (Optional)
		Capstone 1 (2 cr.) (15-16 weeks)		Capstone 2 (2 cr.) (15-16 weeks)		Capstone 3 (2 cr.) (15-16 weeks)		Capstone 4 (2 cr.) (15-16 weeks)		
8 Credits		Thesis Track: 6 Credits Capstone Track: 6 Credits		Thesis Track: 7 Credits Capstone Track: 6 Credits		Thesis Track: 6 Credits Capstone Track: 6 Credits		Thesis Track: 5 Credits Capstone Track: 4 Credits		Total Credits: Thesis: 32 credits Capstone: 30 credits

MSDH CURRICULUM DENTAL HYGIENE MANAGEMENT (online)

Fall Semester	Spring Semester	Summer Semester	Fall Semester	Spring Semester	Summer Semester
EPSY 5261 Introduction to Statistics and Measurement (3cr.) DH 5401 Research Methods in Health Science (3 cr.) (Core)	MBA 6031 Financial Accounting (3 cr.) DH 5407 Instructional Strategies (2 cr.) (Core) MBA Elective (3 cr.)	MBA Electives (3 cr.) MBA Elective(s) (4 cr.)	MBA 6221 Supply Chain and Operations (3 cr.) DH 5421 Oral Health Care Policy and Funding Strategies (2cr.) (Core)	MBA 6211 Marketing Management (3cr.) DH5413 Administrative Leadership and Professional Development (2 cr.) (Core)	DH 5203 Capstone Project (3 cr.) DH 5201 Management Internship (5cr.) OR DH 8779 Thesis (10cr.)
6 credits	8 credits	7 credits	5 credits	5 credits	8 or 10 credits