COMPREHENSIVE MED IMAGING-BS

Program Overview

Bachelor of Science - Comprehensive Medical Imaging - Diagnostic Medical Sonography Emphasis

Student Learning Outcomes

The Diagnostic Medical Sonography graduate will be able to:

- Provide basic patient care and comfort to all patients.
- Employ professional judgement and communication.
- Demonstrate competence in the use of acoustic physics principles, Doppler ultrasound principles, and ultrasound instrumentation through proper equipment operation and transducer selection.
- Evaluate the interaction between ultrasound and tissue and the probability of biological effects in clinical examinations.
- Produce and assess ultrasonographic images of normal and abnormal anatomy and physiology.
- Identify, document, and develop differential diagnosis of abnormal sonographic and Doppler patterns.

Student learning outcomes will be evaluated on an annual basis and reviewed with the DMS program advisory board.

Mission Statement

The mission of Great Basin College's Diagnostic Medical Sonography program is to provide quality education that prepares the Diagnostic Medical Sonography student for practice in a variety of health care settings, improving health care in the community in which they practice.

Program Goals

To prepare competent entry-level general sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains for the abdominal-extended and obstetrics and gynecology sonography concentrations.

Accreditation

The Great Basin College Diagnostic Medical Sonography Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS) in the Abdominal extended and OB/GYN specialties.

Commission on Accreditation of Allied Health Education Programs:

9355 113th St N, #7709

Seminole, FL 33775

727.210.2350

www.caahep.org

Contact Information

School of Health Sciences and Behavioral Health 775.327.2317.

Once accepted into the DMS program, students must adhere to the rules outlined in the DMS program handbook and maintain a C (76%) or higher in all courses contributing to the degree. Students will complete one semester of didactic and laboratory coursework, followed by four semesters of clinical and didactic coursework. A minimum of two different clinical sites is required, often necessitating the student to relocate to other communities for the duration of the clinical course. Clinical courses are 4 weeks for the first rotation, 16 weeks for the second, 10.5 weeks for the third, and 16 weeks for the fourth. Students will remain continuously enrolled in this 15-month program and complete coursework over the winter break and summer months.

The GBC Sonography program offers multiple lab sites throughout the state. Labs are currently maintained in Elko, Fallon, Reno and Pahrump. Upon acceptance, students may be offered placement in any one of these labs. Those with lab sites away from Elko will complete synchronous didactic education via Zoom.

Students will be required to complete a physical examination, drug screening, and a background check prior to beginning the program. Certain immunizations, including the COVID-19 vaccine, may be required for acceptance into individual clinical sites.

Program Admission Requirements

It is essential that students interested in this program schedule an advisement with DMS program faculty to evaluate acceptability of their previously awarded degree. Transcript evaluation of a program or course may be necessary and may require supporting information such as course descriptions, texts, and syllabi. Transcripts from the awarding institution must be sent to the GBC Admissions and Records Office for evaluation.

Limited Admission Program

The GBC DMS program is a limited admission program. All qualified applicants will be considered on a point merit basis, including type of associates acquisition, course performance and completion, certifications/licensure, residency, and veteran status as outlined in the DMS application packet. Except for CMI 376, only students accepted into the DMS program will be allowed to take CMI courses.

Application

To be eligible for either DMS program at GBC, a student must:

- Complete a prerequisite AA, AS or higher degree from a regionally accredited institution and all DMS program prerequisite courses to apply OR
- Complete a patient care centered AAS degree at a regionally accredited institution and all program prerequisites. For this option, students may be required to complete additional general education requirements to meet degree requirements. Any necessary general education credits beyond 6 must be completed before beginning the program.
- Apply to Great Basin College.
- Complete a DMS program application.
- Have a cumulative GPA of 2.0 or higher.
- Have a minimum of C (76%) or higher on any coursework applied to the DMS.
- Complete USA+ testing by the application deadline.
- Submit a professional resume or curriculum vitae.
- Complete all required application paperwork.
- Be 18 years or older by the starting date of the fall semester
- Attend an interview.

Applications must be submitted to the GBC Sonography website at https://gbcnv.edu/programs/health_sciences/bs_sono/. on or before May 1 to be considered for acceptance to the program beginning in August of the same year. Students completing their prerequisites during the semester of application are eligible to apply.

In addition, students have the option to include the following in their application to receive additional points toward admittance:

- Current healthcare certifications or licensures, if applicable.
- Documentation of veteran status, if applicable.

Students who have previous convictions should contact the ARDMS to ensure they meet the ethical standards for registry prior to applying to the program.

NOTE: Some states require additional licensure beyond the ARDMS to practice in their state. Specific state requirements may be found at: https://www.sdms.org/advocacy/state-licensure.

Maintaining Good Standing in the DMS Program

- Students must complete all assignments and obtain a C or higher grade (76% or higher) in all required courses throughout the DMS program.
- Students must comply with the policies in the Diagnostic Medical Sonography handbook.
- It is the student's responsibility to notify the Program Director of any changes in licensure, certification, or health status. (Such information may affect the student's good standing status).

Travel and Fees

The first year of the program, students are required to attend lectures in person or via zoom . Students accepted into the Elko lab will attend in person, and students accepted to all other lab sites will attend via zoom. Students must attend all required labs at their assigned lab site. Beginning the winter of the first year and continuing until graduation, students will be required to complete 34-40 hr./ week clinical rotations at their assigned clinical site as scheduled by the program. Clinical assignments may require students to relocate for part or all of a clinical experience.

The DMS program follows the fee schedule and refund policy of the GBC system. Please see the college policy in this catalog for details.

Scholarships and financial aid opportunities are available to all eligible GBC students. Please see the student financial services office for details.

Additional Expenses- (approximation)

Program Description

Students seeking the Bachelor of Science in Comprehensive Medical Imaging with an emphasis in

Diagnostic Medical Sonography (DMS) program at GBC must complete a prerequisite associate degree or higher from a regionally accredited institution and all DMS program prerequisite courses to apply.

Students successfully completing the BS in CMI with emphasis in DMS are eligible to apply for ARDMS

examinations under Prerequisite 3B or Prerequisite 2. Prerequisite Requirements

- Hold an associate degree or higher awarded by a regionally accredited college (see application section for details). The prerequisite degree curriculum must include, at a minimum:
  - MATH 126, 126E or higher,
  - General college level physics and/or radiographic physics (RAD 118 or PHYS 100),
  - Communications skills (ENG 102 or COM 113),
  - Human Anatomy and Physiology (BIOL 223 & 224),
  - Patient care (NURS 130 or EMS 118),
  - Medical terminology (RAD 112, EMS 204 or NURS 140).
- Attend an interview.

Licensure

Upon successful completion of the BS in CMI with emphasis in DMS, students will be eligible to apply

for the examination for licensure by the American Registry for Diagnostic Medical Sonography (ARDMS) in

general sonography. Program required courses:

*In addition to prerequisites, students are encouraged to complete the following courses prior to applying to the program.

NURS 337 Pathophysiology **3 Credits**
Explores the pathophysiologic processes associated with common chronic and acute health problems across the lifespan. Incorporates the influence of age, ethnicity, and cultural patterns on illness development and resolution. The evidence base supporting current knowledge of disease processes and common health problems is explored.

CMI 376 Sectional Anatomy in Medical Imaging 1 Credit

General Education Requirements

Communications and Expressions

Written Communications (one course required)
ENG 100 Composition-Enhanced **5 Credits**

Allows students to fulfill their first semester of English while completing the remediation process. Designed for students who did not place into ENG 101 on the placement test/writing sample, but did not score so low that they need ENG 95. Allows a student to refine specific skill deficiencies while completing the first semester of freshman composition (ENG 100 is equivalent to ENG 101). Students will have additional Academic Success Center requirements. Although it is a five-credit course, it does not replace ENG 102. After successful completion of ENG 100, a student must take ENG 102 to complete the general education requirement.
ENG 101 Composition I **3 Credits**

Critical reading and writing of the expository essay. Emphasizes pre-writing, strategies for organization, and revision.

Oral Communications
COM 113 Fund Speech Communication **3 Credits**

Principles and theories of speech communication. Participation in public speaking and interpersonal communication activities.

Evidence-Based Communications
ENG 102 Composition II **3 Credits**

Continuation of English 101. Emphasizes writing from sources, argument, the investigative paper, and research techniques.

Fine Arts (one course required)
ART 100 Visual Foundations **3 Credits**

A beginning art class that includes a survey of art and the basic components of design. The class explores visual concepts as they relate to the history of art through class presentations, discussions, and a variety of media. Students should plan for three hours of studio work outside the class.
ART 101 Drawing I **3 Credits**

A disciplined foundation in drawing concepts based on visual observation skills.
ART 107 Design Fundmntls I (2-D) **3 Credits**
Explores the fundamentals of design using various media focusing on 2-D design.

ENG 205 Intro to Creative Writing **3 Credits**

A creative writing course designed to introduce students to the production of fiction and poetry.

MUS 101 Music Fundamentals **3 Credits**

Notation, terminology, intervals, and scales. Designed to furnish a foundation for musicianship. Recommended for teachers in public schools and all others desiring a basic music background.

THTR 100 Introduction to Theatre **3 Credits**

A survey of the basic principles, facts, and theories providing an understanding of the art of theatre. Course also includes a special focus on the practical technical aspects of the theatre and on live theatre experiences.

THTR 105 Introduction to Acting I **3 Credits**

Examines acting fundamentals and focuses on development of vocal, physical, and creative tools to be used on stage.

THTR 121 Stage Makeup **3 Credits**

This course focuses on the history of makeup and basic approaches to applying make-up for the stage and screen. Make-up supplies will be studied, as well as techniques for corrective, old-age, character, stylized, and special effects makeup.

THTR 204 Theatre Technology I **3 Credits**

Lecture and discussion encompassing the philosophy and techniques of technical theatre.

WELD 200 Metal Art **3 Credits**

This course is designed to give the student the basic understanding of two dimensional 2D and three-dimensional 3D metal art. Also covered in this course we will discuss different Cutting, Welding and metal finishing techniques that are used in this discipline as it relates to metal art.

Logical and Scientific Reasoning

Mathematical Reasoning (one course required): Choose from the courses listed below or any higher-level math course. Excludes MATH 389

MATH 126 Precalculus I **3 Credits**

A third course in algebra that stresses polynomial, quadratic, rational, exponential, and logarithmic functions, including their graphs and applications; complex numbers; systems of equations; and basic operations with matrices and determinants, including Cramer's rule. It is recommended that students have completed prerequisites within two years of enrolling in this course.

MATH 126E Precalculus I Expanded **3 Credits**

Precalculus I Expanded with Co-requisite support: Includes equations, relations, functions, graphing; polynomial, rational, exponential, logarithmic, and circular functions with applications; coordinate geometry of lines and conics; analytic trigonometry; matrices and determinants; and binomial theorem. It is recommended that students have completed prerequisites within two years of enrolling in this course.

Scientific Reasoning (both courses required)

BIOL 223 Human Anatomy & Physiology I **4 Credits**

The morphology and physiology of cells, tissues, and the integumentary, skeletal, muscular, and nervous systems in a laboratory and lecture class. Designed for all life science majors but specifically for students in allied health programs. Concurrent enrollment in a corresponding lab section is required for this course.

BIOL 224 Anatomy & Physiology II **4 Credits**

A continuation of Biology 223 with consideration of the circulatory, respiratory, digestive, excretory, endocrine, and reproductive systems; increased emphasis on body chemistry. Concurrent enrollment in a corresponding lab section is required for this course.

Scientific Data Interpretation

BIOL 190 Intro Cell/Molecular Biology **4 Credits**

Structure and function of cells. Major molecules of life; composition and physiology of cellular organelles; cell metabolism, reproduction, motility, and gene function of both plant and animal cells. Required for biology majors. Concurrent enrollment in a corresponding lab section is required for this course.

Human Societies and Experience

American Constitutions and Institutions: HIST 101 and 102 or PSC 101

HIST 101 U.S. History to 1877 **3 Credits**

Survey of U.S. political, social, economic, diplomatic, and cultural development from colonial times through Reconstruction. When taken with HIST 102 satisfies the GBC General Education American Constitutions and Institutions Requirement. HIST 101 and 102 need not be taken sequentially. Either class may be taken alone.

HIST 102 U.S. History Since 1877 **3 Credits**

Survey of U.S. political, social, economic, diplomatic, and cultural development from 1877 to the present. Course satisfies the Nevada Constitution Requirement. When taken with HIST 101 satisfies the GBC General Education American Constitutions and Institutions Requirement. Can be used to satisfy the Nevada Constitution Requirement for out-of-state transfer students who have previously satisfied the United States Constitution Requirement. HIST 101 and 102 need not be taken sequentially. Either class may be taken alone.

PSC 101 Intro American Politics **3 Credits**

A survey of United States, national, state, and local governments with emphasis on the cultural aspects of the governing process. Satisfies the legislative requirement for the United States and Nevada Constitutions.

Structure of Societies

HMS 200 Ethics in Human Services **3 Credits**

Real life applications for personal and professional boundaries, beliefs, ethics, values, morals, and codes of conduct in human relationships using ethical decision-making, problem-solving, and critical-thinking activities are emphasized. This course may be repeated up to three times for continuing education credit. (Check with individual licensing boards prior to registering).

Humanities (one course required)

ART 160 Art Appreciation **3 Credits**

Introduction to the visual arts, illustrating the place of art in its social and cultural setting.

ENG 203 Intro to Literary Study **3 Credits**

Introduction to the elements of fiction, poetry, and drama used in the analysis of literature.

ENG 223 Themes of Literature **3 Credits**

Themes and ideas significant in literature.

FIS 100 Introduction to Film **3 Credits**

Introduction to the historical development of film as art. Considers the development of cinematic techniques (i.e., cinematography, editing, sound, etc.), cinematic genres (i.e., the western, romantic comedy, etc.) and narrative elements (i.e., plot, character, conflict, etc.) as exemplified by the work of major American and international directors.

FREN 111 First Year French I **3-4 Credits**

Development of language skills through practice in listening, speaking, reading, writing, and structural analysis. Language practice required.

FREN 112 First Year French II **3-4 Credits**

A continuation of FREN 111. Language practice required.

HIST 208 World History I **3 Credits**

Survey of world civilizations to 1600. Examines societies, cultures, and issues relative to Africa, the Americas, Asia, Europe, the Middle East and Oceania.

HIST 209 World History II **3 Credits**

Survey of world civilizations since 1600. Examines historical societies, cultures, and issues relative to Africa, the Americas, Asia, Europe, the Middle East, and Oceania.

HUM 101 Intro to Humanities I **3 Credits**

An introduction to humanities through a study of seven major arts including film, drama, music, literature, painting, sculpture, and architecture. Each of these arts is considered from the perspective of historical development, the elements used in creating works of art, meaning and form, and criticism and critical evaluation.

HUM 210 Communicating Diversity **3 Credits**

Communicating Diversity is a lower division course designed to familiarize students with the fundamentals of diversity and how those are expressed through communication. Students will develop a deep understanding of the way in which we communicate race, gender, class, sexual orientation, nationality, religion, and physical/mental ability and how it impacts our daily lives. This course will take an intersectional approach to understanding diversity and seek communication strategies for inclusivity. Emphasis will be placed on defining and developing the critical thinking skills necessary to push past oppression, marginalization, and other issues centralized around diverse populations. Students will be encouraged to investigate and discover diversity issues, solutions, and concepts at the local and global level using case studies, current events, and other significant moments in history.

MUS 121 Music Appreciation **3 Credits**

The historical and cultural background of music and origins to the twentieth century.

PHIL 101 Intro to Philosophy **3 Credits**

Basic problems in different areas of philosophy such as ethics, political theory, metaphysics, and epistemology.

PHIL 102 Critical Thinking **3 Credits**

Covers non-symbolic introduction to logical thinking in everyday life, law, politics, science, advertising; common fallacies; and the uses of language, including techniques of persuasion.

PHIL 135 Introduction to Ethics **3 Credits**

Introduction to Ethics: critical introduction to classical and modern ethical theories such as utilitarianism, deontology, and virtue ethics. Emphasis throughout on applying the theories in various contexts such as social, political, or interpersonal. The ultimate goal will be to allow students to clarify their own thinking and positions on important ethical issues confronting society today.

SPAN 111 First Year Spanish I **3 Credits**

Development of language skills through practice in listening, speaking, reading, writing, and structural analysis. Language practice required.

SPAN 112 First Yr Spanish II **3 Credits**

A continuation of SPAN 111. Language practice required.

SPAN 211 Second Year Spanish I **3 Credits**

Considers structural review, conversation and writing, and readings in modern literature.

Mastery Course Requirements (one course required)

HSC 300 Statistics for Health Sciences **3 Credits**

Introduction to quantitative methods in the analysis and interpretation of data from research in the health and human sciences. Emphasis on conceptual understanding, appropriate application of tests, and interpretation of results.

INT 339 Integrative Humanities Seminar **3 Credits**

An integrative seminar on topics in the humanities. The topics will vary to address needs and interests of programs. Course fulfills the upper-division integrative humanities general education requirements. May be repeated once for credit if the topics are different.

HUM 301 Studies in Humanities **3 Credits**

An examination of various topics and subjects in the Humanities including art, literature, music, film, theater and others.

INT 369 Integrative Science Seminar **3 Credits**

An integrative seminar on topics in science. The topics will vary to address needs and interests of programs. Course fulfills the upper-division integrative science general education requirements. May be repeated once for credit if the topics are different.

GEOL 335 Earth Resources/Environment **3 Credits**

Geological availability, exploitation, and use of nonrenewable natural resources including metallic minerals, nonmetallic, and energy resources.

INT 359 Integrative Math Seminar **3 Credits**

An integrative seminar on topics in mathematics. The topics will vary to address needs and interests of programs. May be repeated once for credit if the topics are different.

MATH 389 Special Topics in Mathematics **3 Credits**

Covers specialized topics in Mathematics. Course may be repeated up to six credits if topics are different.

ANTH 307 Ancient Civilizations **3 Credits**

An exploration of the world's first civilizations and states in Africa, Eurasia and the Americas - the general trends in select regions and coverage of key archaeological sites. A review of theoretical perspectives on the rise and collapse of states along with techniques used in archaeology. This course satisfies the requirements for INT 349.

ANTH 332 (De)Constructing Race **3 Credits**

This course examines the concept of race from an anthropological perspective¿it is an exploration of the biological basis for human variation, the construction of racial categories, the nature of social hierarchy and inequality, and the role of race in systemic inequalities (i.e., education, economics, environment, health security, the legal system, the policing system, food security, housing, political organization, and so on) in the United States and elsewhere. This course satisfies the requirements for INT 349.

HIST 303 Worlds of Islam **3 Credits**

Introduces the theology and culture of early Islam. Examines the history of the 'rightly guided caliphs' era, the Umayyad and Abbasid periods, the Ottoman dynasty and others. Explores recent regional variations in Islam. This course satisfies the requirements for INT 349.

HIST 312 Expansion of the U.S. **3 Credits**

This course will examine the expansion and growth of the United States with emphasis on westward movement and increased international presence over time. Emphasis will be placed on U.S. expansion across North America and beyond. This course satisfies the requirement for INT 349.

HIST 341 Global China **3 Credits**

The outward flow of Chinese culture, cash, power, and people have profoundly influenced world history for thousands of years. This course examines the history of China in a global context from the Qin era to the present with a special focus on modern times and various Chinese migrations. This course satisfies the requirements for INT 349.

INT 349 Integrative Social Science Sem **3 Credits**

An integrative seminar on topics in the social sciences. The topics will vary to address needs and interests of programs. Course fulfills the upper-division integrative social sciences general education requirements. May be repeated once for credit if the topics are different. ANTH 307, ANTH 332, HIST 303, HIST 341, and PSY 313 also fulfill the INT 349 requirement.

PSY 313 Well-Being: East Meets West **3 Credits**

This course will cover topics pertaining to well-being from both a western psychological viewpoint, and an eastern perspective. Topics covered include, but are not limited to: positive psychology, mindfulness, joy, gratitude, cognition, spirituality, health, attachment, and emotions. The focus will be on integrating concepts from both the East and West to arrive at an understanding of what contributes to the well-being of individuals. This course satisfies the requirements for INT 349.

Program Requirements

CMI 350 Ultrasound Physics/Instrument **4 Credits**
Principles of acoustical physics, Doppler Ultrasound and ultrasound instrumentation.

CMI 351 Abdominal Ultrasound **3 Credits**
Recognition and identification of the sonographic appearance of normal anatomical structures, disease processes, pathology, and pathophysiology of the abdomen.

CMI 352 Obstetric Ultrasound **3 Credits**
Recognition and identification of the sonographic appearance of normal maternal, embryonic, and fetal anatomical structures and obstetric disease processes, pathology, and pathophysiology.

CMI 353 Gynecologic Ultrasound **3 Credits**
Recognition and identification of the sonographic appearance of normal anatomical structures of the female pelvis and gynecological disease processes, pathology and pathophysiology.

CMI 354 Vascular Ultrasound **1-3 Credits**
Students will learn basic anatomy, physiology, pathophysiology and Doppler patterns of the human vascular system as it relates to basic sonographic vascular imaging.

CMI 378 Small Parts Ultrasound **1 Credits**
Recognize and identify sonographic appearance of normal anatomic structures, disease processes, pathology, and pathophysiology of anatomic small parts including, thyroid, scrotum, breast and other.

CMI 400 Intro to Clinic Imaging Exp **2 Credits**
Students will be oriented to the clinical site and begin participating in basic sonographic scanning procedures under sonographer supervision. 120 hours of clinical experience will be required at an assigned clinical site.

CMI 486 Diag Med Image Clinic Exp I **9 Credits**
Clinical applications of instrumentation, quality control, patient care and performance of diagnostic medical sonography procedures under the direction or observation of a clinical sonographer.

CMI 487 Diag Med Image Clinic Exp II **7 Credits**
Continuation of clinical hours to build clinical applications of instrumentation, quality control, patient care and performance of diagnostic medical sonography procedures under the direction or observation of a clinical sonographer.

CMI 488 Diag Med Image Clinic Exp III **10 Credits**
Continuation of clinical hours to build clinical applications of instrumentation, quality control, patient care and performance of diagnostic medical sonography procedures under the direction or observation of a clinical sonographer.

CMI 491 Sonography Review Topics **1 Credits**
Review sonographic concepts, scanning techniques, imaging procedures, anatomy, pathology and pathophysiology.

CMI 492 Comp Medical Imaging Capstone **3 Credits**
This course utilizes knowledge and experience gained from comprehensive medical imaging and general education courses to develop links between scholastic and professional experiences. This course will emphasize leadership, fiscal and personal responsibilities, and prepare students for a successful transition into the professional workforce.

CMI 366 Abdominal Ultrasound II 3 Credits

Suggested Course Sequence

1st Semester - Fall

Course	Credits
Written Communications*	3-5
Mathematics*	3
BIOL 190	4
NURS 140	3
Fine Arts*	3
TOTAL	16

*Choose with advisor

2nd Semester - Spring

Course	Credits
PSC 101	3
ENG 102	3
BIOL 223	4
HMS 200	3
Humanities*	3
TOTAL	16

*Choose with advisor

3rd Semester - Fall

Course	Credits
NURS 130	6
BIOL 224	4
MATH 127 or STAT 152	3
COM 113	3
TOTAL	16

*Choose with advisor

4th Semester - Spring

Course	Credits
PHYS 100	3
Mastery Course*	3
NURS 337**	3
CMI 376**	1
TOTAL	10

*Choose with advisor **Permission Required Award Associate of Science Degree

5th Semester - Fall

Course	Credits
CMI 350	4
CMI 351	3
CMI 353	3
CMI 354	2
Elective	2
TOTAL	14

6th Semester - Winter

Course	Credits
CMI 400	2
Elective*	3
TOTAL	5

*Choose with advisor

7th Semester - Spring

Course	Credits
CMI 352	3
CMI 486	9
CMI 366	3
CMI 378	1
Elective*	3
TOTAL	19

*Choose with advisor

8th Semester Summer

Course	Credits
CMI 487	7
Elective*	3
TOTAL	10

*Choose with advisor

9th Semester - Fall

Course	Credits
CMI 488	10
CMI 491	1
CMI 492	3
TOTAL	14

Suggested Course Sequence

Plan for students transferring in with regionally accredited associates degree or higher and all prerequisite courses

Prerequisite Degree

Minimum of 60 credits required

1st Semster - Fall

Course Credits CMI 350 4 CMI 351 3 CMI 353 3 CMI 354 2 CMI 376 1 NURS 337 3 TOTAL 16

2nd Semester - Winter

Course Credits CMI 400 2 TOTAL 2

3rd Semester - Spring

Course Credits CMI 352 3 CMI 366 3 CMI 378 1 CMI 486 9 MASTERY COURSE* 3 TOTAL 19 *Choose with advisor

4th Semester - Summer

Course Credits CMI 487 7 ELECTIVE* 2 TOTAL 9 *Choose with advisor

5th Semester - Spring

Course Credits CMI 488 10 CMI 491 1 CMI 492 3 TOTAL 14