

ORTHOPEDIC TECHNOLOGY ASSOCIATE IN SCIENCE AND CERTIFICATE OF ACHIEVEMENT



Refer to Admission: Orthopedic Technology (OT) Program in Admission Information (<https://catalog.gcccd.edu/grossmont/admission-information/>) for special admission procedures and criteria.

A program designed to train students as Orthopedic Technologists, preparing graduates with lifetime professional skills in an expanding allied health field. Orthopedic Technologists are employed in hospitals, clinics, or private practice offices for applying, adjusting, and/or removing of casts, splints, and braces. In addition, the Orthopedic Technologists set up, adjust, and maintain all traction configurations, assist with the care of the acutely injured orthopedic patients, and assist the physician in the reduction and/or manipulation of orthopedic injuries. This program prepares the graduate to take the national certification examination (NBCOT).

Students are admitted to the Orthopedic Technology Program based on the date a completed application packet is submitted to include the following: OT application, completed immunizations and/or tests and official transcripts of all science prerequisites if taken outside of GCCCD. Program applications are accepted year round and is a separate process from an application to Grossmont College.

For all information on admission criteria, see the Orthopedic Technology Program website at <https://www.grossmont.edu/academics/programs/health-professions/orthopedic-technology/>.

Grossmont College prepares the student for an Associate Degree in Science as an Orthopedic Technologist or, upon successful completion of the Orthopedic Technology courses, a Certificate of Achievement. In addition to the orthopedic technology courses, the major requires selected general education courses to be successfully completed for the degree. Upon completion of all degree requirements, the graduate is eligible to sit for the certification exam as a Certified Orthopedic Technologist administered by the National Board for Certification of Orthopedic Technologists, Inc. (NBCOT).

Important: Any prior conviction of a misdemeanor or felony may influence eligibility for licensure or certification as an Orthopedic Technologist. A flagged background check or drug screen may also prohibit participation in the program, certification exam, or securing employment. Applicants with prior convictions are urged to contact the National Board for Certification of Orthopedic Technologists, Inc. (NBCOT) at 866-466-2268.

Career Opportunities

<https://www.grossmont.edu/student-support/career-center/resources.php>

Orthopedic Assistant
Orthopedic Cast Specialist

Orthopedic Technologist / Assistant
Orthopedic Surgical Technician
Orthotic Assistant
Orthotics-Prosthetics Assistant
Prosthetics Assistant

The Program-level Student Learning Outcomes (PSLOs) below are outcomes that students will achieve after completing specific degree / certificate requirements in this program. Students will:

1. Articulate descriptions of orthopedic conditions based on the knowledge of anatomical structures and their relationships to one another.
2. Demonstrate the ability to apply, adjust, and remove all common orthopedic devices per hospital policy.
3. Demonstrate the knowledge of and the ability to execute aseptic technique when performing orthopedic procedures.
4. Demonstrate an adherence to the Standards of Practice and Code of Ethics of the National Association of Orthopedic Technologist that will reflect the ethical, legal and moral responsibilities of the Orthopedic Technologists.

General Education Requirements for Orthopedic Technology Majors

All Allied Health and Nursing students adhere to the graduation requirements outlined in the college catalog for the academic year in which they enter the program.

Competency Requirement

1. Competency in reading, writing, expression shown by achieving a "C" grade or higher or "Pass" in courses listed under Area A, Section 1 – Written Communication.
2. Competency in Mathematics shown by
 - a. Completion of MATH-120 Quantitative Reasoning or a higher numbered math course with a grade of "C" or higher or a grade of "P"; or a statistics course from another discipline with a grade of "C" or higher or a grade of "P"; or placing into a math course numbered MATH-170 Analytic Trigonometry or above.

Area A - Language and Rationality

Three courses (a minimum of nine units) are required in written communication, oral communication, and analytical thinking. At least **one** course must be taken from **each** of the following three sections:

1. Written Communication

Must be completed with a "C" grade or higher or "Pass" to satisfy the competency requirement.

Code	Title	Units
ENGL-120	College Composition and Reading	3
ENGL-124	Advanced Composition: Critical Reasoning and Writing	3
ESL-122	College Rhetoric	6

2. Oral Communication

Code	Title	Units
COMM-120	Interpersonal Communication	3
COMM-122	Public Speaking	3
COMM-130	Fundamentals of Human Communication	3

3. Analytical Thinking

Must be completed with a "C" grade or higher or "Pass" to satisfy the competency requirement.

Code	Title	Units
ANTH-215	Statistics for the Behavioral Sciences	4
BIO-215	Statistics for Life Sciences	3
ECON-215	Statistics for Business and Economics	4
GEOG-104	Introduction to Geographic Information Science	3
MATH-120	Quantitative Reasoning	3
MATH-125	Structure and Concepts of Elementary Mathematics I	3
MATH-126	Structure and Concepts of Elementary Mathematics II	3
MATH-160	Elementary Statistics	4
MATH-170	Analytic Trigonometry	3
MATH-175	College Algebra	4
MATH-176	Precalculus: Functions and Graphs	6
MATH-178	Calculus for Business, Social and Behavioral Sciences	4
MATH-180	Analytic Geometry and Calculus I	5
MATH-245	Discrete Mathematics	3
MATH-280	Analytic Geometry and Calculus II	4
MATH-281	Multivariable Calculus	4
MATH-284	Linear Algebra	3
MATH-285	Differential Equations	3
PHIL-125	Critical Thinking and Philosophical Composition	3
PHIL-130	Logic	3
PSC-120	Fundamentals of Scientific Computing (MATLAB)	4
PSY-215	Statistics for the Behavioral Sciences	4
SOC-215	Statistics for the Behavioral Sciences	4

Area B - Natural Sciences

Two natural science courses (a minimum of seven units) are required. One course must contain a laboratory.

Code	Title	Units
ANTH-130	Introduction to Biological Anthropology ¹	3
ANTH-131	Biological Anthropology Laboratory ²	1
ASTR-110	Descriptive Astronomy ¹	3
ASTR-112	General Astronomy Laboratory ²	1
ASTR-120	Exploration of the Solar System	3
One of the following sequences:		8
Sequence A.		
BIO-140	Human Anatomy	
BIO-141	Human Physiology ¹	
Sequence B.		
BIO-144	Anatomy and Physiology I	
BIO-145	Anatomy and Physiology II	
BIO-152	Paramedical Microbiology	5
BIO-105	Marine Biology	4
BIO-110	Environmental Biology	4

BIO-112	Contemporary Issues in Environmental Resources ¹	3
BIO-114	Heredity, Evolution and Society ¹	3
BIO-118	Introduction to Human Biology ¹	3
BIO-120	Principles of Biology	4
BIO-141L	Laboratory in Human Physiology ²	1
BIO-230	Principles of Cellular, Molecular and Evolutionary Biology	4
BIO-240	Principles of Ecology, Evolution and Organismal Biology	5
CHEM-102	Introduction to General, Organic and Biological Chemistry	5
CHEM-110	Environmental Chemistry ¹	3
CHEM-113	Forensic Chemistry	4
CHEM-115	Fundamentals of Chemistry	4
CHEM-116	Introductory Organic and Biochemistry	4
CHEM-117	Introductory Biochemistry	3
CHEM-120	Preparation for General Chemistry	4
CHEM-141	General Chemistry I	5
CHEM-142	General Chemistry II	5
CHEM-231	Organic Chemistry I	5
CHEM-232	Organic Chemistry II	5
CHEM-241	Organic Chemistry I Lecture ¹	3
CHEM-241L	Organic Chemistry I Laboratory ²	2
CHEM-242	Organic Chemistry II Lecture ¹	3
CHEM-242L	Organic Chemistry II Laboratory ²	2
GEOG-120	Physical Geography: Earth Systems ¹	3
GEOG-121	Physical Geography: Earth Systems Laboratory ²	1
GEOG-140	Meteorology: Weather and Climate ¹	3
GEOL-104	Earth Science ¹	3
GEOL-110	Planet Earth ¹	3
GEOL-111	Planet Earth Laboratory ²	1
GEOL-121	Earth History	4
GEOL-210	Geology of California ¹	3
GEOL-220	Geology of the National Parks ¹	3
GEOL-230	Natural Disasters ¹	3
OCEA-112	Introduction to Oceanography ¹	3
OCEA-113	Oceanography Laboratory ²	1
PSC-100	Physical Science for Elementary Education ¹	3
PSC-110	Introduction to the Physical Sciences ¹	3
PSC-111	Introduction to Physical Sciences Laboratory ²	1
PHYC-110	Introductory Physics	4
PHYC-130	Fundamentals of Physics	4
PHYC-131	Fundamentals of Physics	4
PHYC-201	Mechanics and Waves	5
PHYC-202	Electricity, Magnetism, and Heat	5
PHYC-203	Light, Optics, and Modern Physics	5
SCI-110	Introduction to Scientific Thought ¹	3

¹ Course does not contain a laboratory component.

² Course is laboratory only.

Area C - Humanities

One humanities course (a minimum of three units) is required.

Code	Title	Units
ASL-120	American Sign Language I	4
ASL-121	American Sign Language II	4
ASL-140	Inside Deaf Culture	3
ASL-220	American Sign Language III	4
ASL-221	American Sign Language IV	4
ARBC-120	Arabic I	5
ARBC-121	Arabic II	5
ARBC-122	Arabic for the Arabic Speaker I	5
ARBC-123	Arabic for the Arabic Speaker II	5
ARBC-148	Language, Culture, and Literature of the Arab World	3
ARBC-220	Arabic III	5
ARBC-221	Arabic IV	5
ARBC-250	Conversational Arabic I	3
ARBC-251	Conversational Arabic II	3
ART-100	Art Appreciation	3
ART-120	Two-Dimensional Design	3
ART-124	Drawing I	3
ART-126	Ceramics I	3
ART-129	Three-Dimensional Design	3
ART-140	Survey of Western Art I: Prehistory Through Middle Ages	3
ART-141	Survey of Western Art II: Renaissance Through Modern	3
ART-142	Art of Africa, Oceania and the Americas	3
ART-143	Modern Art	3
ART-145	Contemporary Art	3
ART-146	Asian Art	3
ART-147	American Art	3
ART-171	Introduction to Digital Art	3
CHIN-120	Chinese I	5
CHIN-121	Chinese II	5
CHIN-220	Chinese III	5
CHIN-221	Chinese IV	5
CHIN-250	Conversational Chinese I	3
CHIN-251	Conversational Chinese II	3
COMM-135	Oral Interpretation of Literature	3
COMM-137	Critical Thinking in Group Communication	3
COMM-144	Communication Studies: Race and Ethnicity	3
COMM-145	Argumentation	3
DANC-110	Dance History	3
DANC-120	Dance Appreciation	3
ENGL-122	Introduction to Literature	3
ENGL-126	Introduction to Creative Writing	3
ENGL-134	Creative Nonfiction Writing I	3
ENGL-135	Creative Nonfiction Writing II	3
ENGL-136	Creative Nonfiction Writing III	3
ENGL-137	Creative Nonfiction Writing IV	3
ENGL-201	Women, Gender, and Sexuality in Literature	3
ENGL-203	Children's Literature	3
ENGL-215	Mythology	3
ENGL-217	Fantasy and Science Fiction	3
ENGL-218	Shakespeare - His Plays and the Theatre of His Time	3
ENGL-219	Death and Dying in Literature	3
ENGL-221	British Literature I	3
ENGL-222	British Literature II	3
ENGL-231	American Literature I	3
ENGL-232	American Literature II	3
ENGL-236	Chicana/o Literature	3
ENGL-237	American Indian Literature	3
ENGL-238	Black Literature	3
ENGL-277	Literary Theme	3
ESL-115	Exploring U.S. Cultures	6
ETHN-126	Chicano/Chicana and Mexican Art	3
ETHN-127	La Chicana	3
ETHN-134	Introduction to American Indian Art	3
ETHN-143	Images of Black Women	3
ETHN-144	Communication Studies: Race and Ethnicity	3
ETHN-236	Chicana/o Literature	3
ETHN-237	American Indian Literature	3
ETHN-238	Black Literature	3
FREN-120	French I	5
FREN-121	French II	5
FREN-152	The French-Speaking World: A Cross- - Cultural Perspective	3
FREN-220	French III	5
FREN-221	French IV	5
FREN-250	Conversational French I	3
FREN-251	Conversational French II	3
GERM-120	German I	5
GERM-121	German II	5
GERM-220	German III	5
GERM-221	German IV	5
GERM-250	Conversational German I	3
GERM-251	Conversational German II	3
HIST-100	Early World History	3
HIST-101	Modern World History	3
HIST-103	Twentieth Century World History	3
HIST-105	Early Western Civilization	3
HIST-106	Modern Western Civilization	3
HIST-113	American Military History	3
HIST-126	History of Mexico	3
HIST-135	Ancient History of Western Civilization	3
HIST-136	Survey of Medieval History	3
HIST-137	History of East Asia	3
HIST-148	Modern Middle East History	3
HUM-110	Principles of the Humanities	3

ETHN-130	U.S. History and Cultures: Native American Perspectives I	3	HIST-161	U.S. History: Asian American and Pacific Island American Perspectives II	3
ETHN-131	U.S. History and Cultures: Native American Perspectives II	3	HIST-180	U.S. History: Black Perspectives I	3
ETHN-135	San Diego County American Indian Tribes	3	HIST-181	U.S. History: Black Perspectives II	3
ETHN-137	American Indian Culture and Heritage	3	MCOM-110	Mass Media and Society	3
ETHN-138	The History and Cultures of California Indians	3	MCOM-210	Social Media in the Digital Age	3
ETHN-145	Introduction to Black Studies	3	MCOM-250	Introduction to Representation in the Media	3
ETHN-160	U.S. History: Asian American and Pacific Island American Perspectives I	3	NUTR-155	Introduction to Nutrition	3
ETHN-161	U.S. History: Asian American and Pacific Island American Perspectives II	3	NUTR-158	Nutrition for Fitness and Sports	3
ETHN-180	U.S. History: Black Perspectives I	3	NUTR-159	Cultural Aspects of Food and Nutrition	3
ETHN-181	U.S. History: Black Perspectives II	3	POSC-120	Introduction to Politics and Political Analysis	3
FS-115	Changing American Family	3	POSC-121	Introduction to U.S. Government and Politics	3
FS-120	Human Development	3	POSC-124	Introduction to Comparative Government and Politics	3
GEND-116	Introduction to Women's Studies	3	POSC-130	Introduction to International Relations	3
GEND-117	Introduction to LGBTQ Studies	3	POSC-140	Introduction to California Governments and Politics	3
GEND-154	Early History of Women in World Civilization	3	POSC-150	Introduction to Political Theory	3
GEND-155	Modern History of Women in World Civilization	3	POSC-160	Politics in Film	3
GEOG-100	Introduction to Global Studies	3	PSY-120	Introductory Psychology	3
GEOG-101	Global Issues	3	PSY-125	Cross-Cultural Psychology	3
GEOG-106	World Regional Geography	3	PSY-132	Psychology of Health	3
GEOG-130	Human Geography: The Cultural Landscape	3	PSY-134	Human Sexuality	3
GEOG-170	The Geography of California	3	PSY-138	Social Psychology	3
HED-120	Personal Health and Lifestyles	3	PSY-140	Physiological Psychology	3
HED-201	Introduction to Public Health	3	PSY-170	Abnormal Psychology	3
HIST-107	History of Race & Ethnicity in the United States	3	PSY-220	Learning	3
HIST-108	Early American History	3	RELG-165	Religion in America	3
HIST-109	Modern American History	3	SOC-114	Introduction to Race & Ethnicity	3
HIST-114	Comparative History of the Early Americas	3	SOC-120	Introductory Sociology	3
HIST-115	Comparative History of the Modern Americas	3	SOC-125	Marriage, Family, and Alternate Lifestyles	3
HIST-118	U.S. History: Chicano/Chicana Perspectives I	3	SOC-130	Contemporary Social Problems	3
HIST-119	U.S. History: Chicano/Chicana Perspectives II	3	SOC-138	Social Psychology	3
HIST-122	Women in Early American History	3	SOC-140	Sex and Gender Across Cultures	3
HIST-123	Women in Modern American History	3	SOC-150	Latinx Communities in the United States	3
HIST-124	History of California	3			
HIST-130	U.S. History and Cultures: Native American Perspectives I	3			
HIST-131	U.S. History and Cultures: Native American Perspectives II	3			
HIST-154	Early History of Women in World Civilization	3			
HIST-155	Modern History of Women in World Civilization	3			
HIST-160	U.S. History: Asian American and Pacific Island American Perspectives I	3			

Area E – Fitness/Wellness

Two courses involving physical exercise and/or dance are required. They can only be chosen from the exercise science and/or dance courses listed below:

Code	Title	Units
Dance		
DANC-068	Introduction to Dance	1.5
DANC-071A	Studio Workshop in Tap Dance I	1
DANC-071B	Studio Workshop in Tap Dance II	1
DANC-072A	Studio Workshop in Modern Dance I	1
DANC-072B	Studio Workshop in Modern Dance II	1
DANC-074A	Studio Workshop in Jazz Dance I	1
DANC-074B	Studio Workshop in Jazz Dance II	1
DANC-078A	Studio Workshop in Ballet I	1
DANC-078B	Studio Workshop in Ballet II	1

DANC-080A	Modern I	1.5	ES-008A	Beginning Indoor Cycling	1
DANC-080B	Modern II	1.5	ES-008B	Intermediate Indoor Cycling	1
DANC-080C	Modern III	1.5	ES-008C	Advanced Indoor Cycling	1
DANC-080D	Modern IV	1.5	ES-009A	Beginning Aerobic Dance Exercise	1
DANC-081A	Tap I	1.5	ES-009B	Intermediate Aerobic Dance Exercise	1
DANC-081B	Tap II	1.5	ES-009C	Advanced Aerobic Dance Exercise	1
DANC-081C	Tap III	1.5	ES-016A	Beginning Trail Running	1
DANC-081D	Tap IV	1.5	ES-016B	Intermediate Trail Running	1
DANC-082A	Social and Ballroom Dance I	1.5	ES-016C	Advanced Trail Running	1
DANC-082B	Social and Ballroom Dance II	1.5	ES-017A	Beginning Trail Hiking	1
DANC-083A	Latin American Dance I	1.5	ES-017B	Intermediate Trail Hiking	1
DANC-083B	Latin American Dance II	1.5	ES-017C	Advanced Trail Hiking	1
DANC-084A	Jazz I	1.5	ES-021A	Beginning Fitness for Chronic Disease And Injury Prevention	1.5
DANC-084B	Jazz II	1.5	ES-021B	Intermediate Fitness for Chronic Disease And Injury Prevention	1.5
DANC-084C	Jazz III	1.5	ES-021C	Advanced Fitness for Chronic Disease and Injury Prevention	1.5
DANC-084D	Jazz IV	1.5	ES-022	Total Body Conditioning	1
DANC-088A	Ballet I	1.5	ES-023A	Beginning Resistance Training	1
DANC-088B	Ballet II	1.5	ES-023B	Intermediate Resistance Training	1
DANC-088C	Ballet III	1.5	ES-023C	Advanced Resistance Training	1
DANC-088D	Ballet IV	1.5	ES-024A	Beginning Fitness Boot Camp	1
DANC-094A	Hip Hop I	1.5	ES-024B	Intermediate Fitness Boot Camp	1
DANC-094B	Hip Hop II	1.5	ES-024C	Advanced Fitness Boot Camp	1
DANC-094C	Hip Hop III	1.5	ES-026	Stress Reduction Through Movement and Mindfulness	1
DANC-094D	Hip Hop IV	1.5	ES-027A	Beginning T'ai Chi Ch'uan	1
DANC-099A	Studio Workshop in Pointe I	1	ES-027B	Intermediate T'ai Chi Ch'uan	1
DANC-099B	Studio Workshop in Pointe II	1	ES-027C	Advanced T'ai Chi Ch'uan	1
DANC-099C	Studio Workshop in Pointe III	1	ES-028A	Beginning Yoga	1.5
DANC-118A	Pilates I	1.5	ES-028B	Intermediate Yoga	1.5
DANC-118B	Pilates II	1.5	ES-028C	Advanced Yoga	1.5
DANC-118C	Pilates III	1.5	ES-029	Adapted Yoga	1
DANC-118D	Pilates IV	1.5	ES-030	Adaptive Aquatic Sports Education	1
Exercise Science			ES-035	Adapted Swimming Limited	1
ES-001	Adapted Physical Exercise	1	ES-037A	Beginning Springboard Diving	1
ES-002	Advanced Adapted Physical Exercise	1	ES-037B	Intermediate Springboard Diving	1
ES-003	Adaptive Aerobic Fitness	1	ES-037C	Advanced Springboard Diving	1
ES-004A	Beginning Fitness for the Newcomer	1	ES-039	Swimming for Nonswimmers	1
ES-004B	Intermediate Fitness for the Newcomer	1	ES-040A	Beginning Aquatic Fitness	1
ES-004C	Advanced Fitness for the Newcomer	1	ES-040B	Intermediate Aquatic Fitness	1
ES-005A	Beginning Cardio Fitness and Resistance Training	1.5	ES-040C	Advanced Aquatic Fitness	1
ES-005B	Intermediate Cardio Fitness and Resistance Training	1.5	ES-041	Adapted Water Aerobics	1.5
ES-005C	Advanced Cardio Fitness and Resistance Training	1.5	ES-043A	Beginning Swimming	1
ES-006A	Beginning Fitness Circuit	1	ES-043B	Intermediate Swimming	1
ES-006B	Intermediate Fitness Circuit	1	ES-043C	Advanced Swimming	1
ES-006C	Advanced Fitness Circuit	1	ES-044A	Beginning Lap Swimming for Health and Fitness	1
ES-007A	Beginning Aerobic Walking for Fitness and Wellness	1.5	ES-044B	Intermediate Lap Swimming for Health and Fitness	1
ES-007B	Intermediate Aerobic Walking for Fitness and Wellness	1.5	ES-044C	Advanced Lap Swimming for Health and Fitness	1
ES-007C	Advanced Aerobic Walking for Fitness and Wellness	1.5			

ES-060A	Beginning Badminton	1
ES-060B	Intermediate Badminton	1
ES-060C	Advanced Badminton	1
ES-061A	Beginning Pickleball	1
ES-061B	Intermediate Pickleball	1
ES-061C	Advanced Pickleball	1
ES-076A	Beginning Tennis	1
ES-076B	Intermediate Tennis	1
ES-076C	Advanced Tennis	1
ES-125A	Beginning Golf	1
ES-125B	Intermediate Golf	1.5
ES-125C	Advanced Golf	1.5
ES-130A	Beginning Gymnastics	1
ES-130B	Intermediate Gymnastics	1.5
ES-130C	Advanced Gymnastics	1.5
ES-155A	Beginning Basketball	1
ES-155B	Intermediate Basketball	1
ES-155C	Advanced Basketball	1
ES-170A	Beginning Soccer	1
ES-170B	Intermediate Soccer	1
ES-170C	Advanced Soccer	1
ES-171A	Beginning Softball	1
ES-171B	Intermediate Softball	1
ES-171C	Advanced Softball	1
ES-172A	Beginning Baseball	1
ES-172B	Intermediate Baseball	1
ES-172C	Advanced Baseball	1
ES-175A	Beginning Volleyball	1
ES-175B	Intermediate Volleyball	1
ES-175C	Advanced Volleyball	1
ES-176A	Beginning Beach Volleyball	1
ES-176B	Intermediate Beach Volleyball	1
ES-176C	Advanced Beach Volleyball	1
ES-180	Self-Defense for Women	1
ES-185A	Beginning Fencing	1.5
ES-185B	Intermediate Fencing	1.5
ES-185C	Advanced Fencing	1.5

OT-215	Diagnosis and Treatment of Orthopedic Disorders II	3
Total Units		31

Plus General Education and Elective Requirements

Certificate of Achievement

Any student who chooses to complete only the courses required for the above major qualifies for a Certificate of Achievement in Orthopedic Technology. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

Associate Degree Major Requirements

Note: All courses must be completed with a letter grade of "C" or higher or "Pass."

Code	Title	Units
OT-110	Orthopedic Anatomy and Physiology	5
OT-111	Orthopedic Techniques I	4
OT-112	Introduction to Clinical Practicum	3
OT-210	Diagnosis and Treatment of Orthopedic Disorders I	5
OT-211	Orthopedic Techniques II	4
OT-212	Supervised Hospital Clinical Practicum I	3
OT-214	Supervised Hospital Clinical Practicum II	4