ATHLETIC TRAINING (AT)

AT 502 (s) Directed Study
Credit arranged.

AT 504 (s) Special Topics
Credit arranged.

AT 506 Clinical Anatomy I
3 credits
Theory and practice of clinical anatomy as it pertains to the lower extremity through the thoracic spine. 2 hours lecture and 2 hours lab.

AT 507 Care and Prevention of Injuries and Illnesses
3 credits
Theory and practice of recognition, treatment, and prevention of injuries and illnesses. 2 hours lecture and 2 hours lab.

AT 508 Evaluation and Diagnosis of Injuries and Illnesses I
4 credits
Theory and practice of musculoskeletal evaluation and diagnosis as it pertains in the lower extremity through the thoracic spine. 3 hours lecture and 3 hours lab.

AT 509 Principles of Rehabilitation
3 credits
Theory and practice of the scientific foundations of musculoskeletal rehabilitation. 2 hours lecture and 2 hours lab.

AT 510 Therapeutic Modalities
2 credits
Theory and practice of therapeutic modalities including thermotherapy, cryotherapy, and mechanical modalities. 2 hours lecture and 2 hours lab.

AT 511 Ethics and Administration in Athletic Training
3 credits
Theory and practice of ethics and administration in athletic training. Prereq: Permission.

AT 512 Research Methods & Statistics I
3 credits
Theory and application of research methods for the health professions including basic statistical analysis. 3 hours lecture.

AT 513 General Medicine for Athletic Trainers
3 credits
Theory and practice of general medical conditions related to athletic training. 3 hours lecture.

AT 514 Psychology of Injury and Referral
3 credits
Theory and practice of the psychology of injury and referral in Athletic Training.

AT 520 Clinical Education I
2 credits
Practice of athletic training clinical skills under the direct supervision of a Preceptor with emphasis on the Level I clinical educational competencies. 4 hours lab.

AT 521 Clinical Experience I
4 credits
Clinical practice in athletic training under the direct supervision of a Preceptor with emphasis on patient care and the safe and appropriate use of skills and techniques.

AT 522 Clinical Education II
2 credits
Practice of athletic training clinical skills under the direct supervision of a Preceptor with emphasis on the Level I clinical educational competencies. 4 hours lab.

AT 523 Clinical Experience II
4 credits
Clinical practice in athletic training under the direct supervision of a Preceptor with emphasis on patient care and the safe and appropriate use of skills and techniques.

AT 524 Clinical Education III
2 credits
Practice of athletic training clinical skills under the direct supervision of a Preceptor with emphasis on the Level II clinical educational competencies. 4 hours lab.

AT 525 Clinical Experience II
4 credits
Clinical practice in athletic training under the direct supervision of a Preceptor with emphasis on patient care and the safe and appropriate use of skills and techniques.

AT 526 Clinical Education IV
2 credits
Practice of athletic training clinical skills under the direct supervision of a Preceptor with emphasis on the Level III clinical educational competencies. 4 hours lab.

AT 527 Clinical Experience III
4 credits
Clinical practice in athletic training under the direct supervision of a Preceptor with emphasis on patient care and the safe and appropriate use of skills and techniques.

AT 528 Seminar in Athletic Training
1 credit
Seminar addresses a year one comprehensive exam process. All topics learned in the first year of the program are eligible for testing.

AT 529 Seminar in Athletic Training II
2 credits
Seminar addresses a year two comprehensive exam process. All topics learned in both years of the program are eligible for testing.

AT 530 Seminar in Athletic Training III
1 credit
Seminar addresses a year three comprehensive exam process. All topics learned in the third year of the program are eligible for testing.

AT 531 Clinical Anatomy II
3 credits
Theory and practice of clinical anatomy as it pertains to the head, neck and upper extremity through the thoracic spine. 2 hours lecture and 2 hours lab.

AT 532 Evaluation and Diagnosis of Injuries and Illnesses II
4 credits
Theory and practice of musculoskeletal evaluation and diagnosis as it pertains in the lower extremity through the thoracic spine. 3 hours lecture and 3 hours lab.

AT 533 Applied Rehabilitation Techniques
3 credits
Theory and practice of rehabilitation techniques as applied to individual physical pathologies. 2 hours lecture and 2 hours lab.

AT 534 Therapeutic Modalities II
2 credits
Theory and practice of therapeutic modalities including electrotherapy. 2 hours lecture and 2 hours lab.

AT 535 Seminar in Athletic Training
1 credit
Seminar addresses a year one comprehensive exam process. All topics learned in the first year of the program are eligible for testing.

AT 536 Seminar in Athletic Training II
2 credits
Seminar addresses a year two comprehensive exam process. All topics learned in both years of the program are eligible for testing.

AT 537 Seminar in Athletic Training III
1 credit
Seminar addresses a year three comprehensive exam process. All topics learned in the third year of the program are eligible for testing.

AT 538 Research Methods & Statistics II
3 credits
Advanced research methods and statistics will be discussed.

AT 539 Pharmacology for Athletic Trainers
3 credits
Clinical pharmacology for athletic trainers as it relates to athletic training educational competencies. 3 hours lecture.

AT 540 Seminar in Athletic Training II
2 credits
Seminar addresses a year two comprehensive exam process. All topics learned in both years of the program are eligible for testing.

AT 541 Seminar in Athletic Training III
1 credit
Seminar addresses a year three comprehensive exam process. All topics learned in the third year of the program are eligible for testing.

AT 542 Scientific Inquiry and Research Presentation
3 credits
This course will provide students with the foundational knowledge to evaluate scholarship and prepare works for scholarly dissemination. MSAT students will present their research findings to the group of faculty and students. All presentations will be graded by the faculty and be accepted or rejected.
AT 543 Neuroscience for Athletic Trainers
3 credits
This course will provide students foundational knowledge of neuroscience and how its application for common neuromuscular conditions (e.g., acute and chronic pain, somatic dysfunction, and motor neuron disorders) can be utilized in the clinical practice of athletic training to improve therapeutic outcomes. Students will examine and synthesize current research and case studies based on neuroscience principles and applications to ascertain the most appropriate therapeutic interventions to be utilized to improve patient healing and satisfaction.

AT 547 Critical Issues in Athletic Training Clinical Practice
3 credits
This course prepares students to recognize challenges and develop strategies for solving issues common in AT clinical practice.
Prereq: Permission.

AT 550 Clinical Education III
2 credits
Practice of athletic training clinical skills under the direct supervision of a Preceptor with emphasis on the Level II clinical educational competencies. 4 hours lab.

AT 551 Clinical Experience III
4 credits
Clinical practice in athletic training under the direct supervision of a Preceptor with emphasis on patient care and the safe and appropriate use of skills and techniques.

AT 552 Clinical Education IV
2 credits
Practice of athletic training clinical skills under the direct supervision of a Preceptor with emphasis on the Level II clinical educational competencies. 4 hours lab.

AT 553 Clinical Experience IV
4 credits
Clinical practice in athletic training under the direct supervision of a Preceptor with emphasis on patient care and the safe and appropriate use of skills and techniques.

AT 587 Prevention and Health Promotion in Athletic Training
3 credits
This course prepares AT students to develop and implement strategies to prevent the incidence and/or severity of injuries and illnesses and optimize patients overall health quality of life.
Prereq: Permission.

AT 600 Doctoral Research and Dissertation
1-45 credits.

AT 604 (s) Special Topics
Credit arranged.

AT 606 Professional and Post-Professional Education in Athletic Training
3 credits
This course is designed to introduce historical background of professional and post-professional education for health care professions. Theoretical foundations and models of health care education will be compared and contrasted. The impact of educational models to health care will be explored. Development of criteria to govern the practicing professional in their chosen residency will be accomplished.
Prereq: Permission.

AT 607 Leadership & Mentoring in AT Clinical Practice
3 credits
This course has been designed to initiate leadership and mentoring in AT clinical practice. Topics relating to leadership and mentoring will be discussed.

AT 610 Advances in Manual Therapy
3 credits
Selected readings from peer reviewed articles will be examined and discussed. Translation of research findings to current clinical practice will be emphasized.
Prereq: Permission.

AT 611 Integrative Manual Therapy
3 credits
Translation of research findings to current clinical practice will be emphasized. Novel intervention theories, techniques, strategies, will be presented, discussed, practiced as related to patient care and practice based evidence.
Prereq: Permission.

AT 620 Research Methods and Evidence Based Practice in Patient Care
3 credits
This course introduces common research performed in patient care. Development of in-depth understanding in areas and types of research underlying quantitative research design will be explored. Introduction to critiquing literature for the purpose of developing a theoretical framework will be included.
Prereq: Permission.

AT 621 Action Research in Patient Care
2 credits
This course sets the foundation for action research in clinical practice. Development of a research question and justification with literature review will be employed. Purpose and methods of institutional review will be evaluated. Further discussion will elucidate the importance of becoming a scholarly practitioner.
Prereq: Permission.

AT 622 Designing and Conducting Applied Research in Patient Care
2 credits
This continues the process of applied research in clinical practice. Development of methods to test a chosen hypothesis will be created. Exploration of statistical methods to test the clinician's hypothesis will be compared. Dissertation proposal will developed.
Prereq: AT 620 and AT 621.

AT 623 Introduction to Survey and Qualitative Research Design in Patient Care
3 credits
This course introduces common qualitative methodologies and survey research design in patient care.
Prereq: AT 620, AT 621, and AT 622.

AT 624 Advanced Quantitative Data Analysis and Interpretation in Patient Care
3 credits
This course provides an in-depth analysis of quantitative research design and data analysis for health care professionals. The goal is to prepare health care students to apply quantitative research design and data analysis skills in patient care. Students will develop sound understanding of research design and be able to utilize regression, factor analysis, and multivariate data analysis skills to answer important research questions in patient care. Students will learn to interpret and disseminate their findings to other health care professionals.
Prereq: AT 620, AT 621, AT 622, and AT 623.
**AT 625 Scientific Writing for Publication in Patient Care**
3 credits
This course is a continuation of clinical research in healthcare and the completion of the Culminating Clinical Project (CCP).
Prereq: AT 620, AT 621, AT 622, AT 623, and AT 624.

**AT 630 Holistic Foundations of Pain in Patient Care**
2 credits
This course explores current topics in clinical practice, related to the foundations of pain in the human body that influence quality care and methods of measurement and evaluation for quality assessment. Exploration to common instrumentation utilized by clinicians will be discussed and compared to literature utilizing the instruments for research purposes.
Prereq: Permission.

**AT 631 Theory and Application of Current and Novel Paradigms in Patient Care**
2 credits
Building on foundation of AT 630, this course illustrates the implications of holistic theories of pain by exploring and integrating appropriate novel interventions within efficacious patient care.
Prereq: Permission.

**AT 632 Integrative Patient Care for the Spine and Pelvic Girdle**
3 credits
This course explores current topics and causes of musculoskeletal injuries to the spine and pelvis. An in-depth look at epidemiology, biomechanics and other topics related to musculoskeletal injuries of the lumbar spine and pelvis will be emphasized.
Prereq: Permission.

**AT 633 Application of Advanced Practice Skills: A Practice-Based Approach**
3 credits
This course explores current topics of interest areas of practicing professionals. An in-depth look at theory, research, and art of the chosen interest area will be explored. Focus will be in critically analyzing areas such as: anatomy, pathophysiology, biomechanics, theoretical framework or ethical principles to explain the students chosen topic.
Prereq: Permission.

**AT 634 Introduction to Quantitative Data Analysis and Interpretation in Patient Care**
2 credits
This course introduces quantitative research design, methods of measurement, and introductory data analysis skills for health care professionals. The goals are for students to develop an introductory understanding of quantitative design, develop skills to perform basic data analysis procedures, and begin to develop the skills to interpret findings from quantitative data analysis research projects.
Prereq: Permission.

**AT 635 Intermediate Quantitative Data Analysis and Interpretation in Patient Care**
2 credits
This course provides an in-depth analysis of quantitative research design and data analysis for health care professionals. The goal is to prepare health care students to apply quantitative research design and data analysis skills in patient care. The goals are for students to develop a sound understanding of research design and be able to utilize correlational, reliability, and univariate data analysis skills to answer important research questions in patient care. Students will learn to interpret and disseminate their findings to other health care professionals.
Prereq: Permission.

**AT 640 Clinical Residency and Analysis of Patient Care I**
6 credits
This course is designed to critically assess clinical skills and improve patient care of the practicing healthcare professional in a mentor guided model. Improvement in selected areas of clinical practice will be measured via formative and summative assessment that employs quantitative measures. Impact of the skill improvement to the organization and profession will be demonstrated.
Prereq: Permission.

**AT 641 Clinical Residency and Analysis of Patient Care II**
6 credits
This course is designed to critically assess clinical skills and improve patient care of the practicing healthcare professional in a mentor guided model. Improvement in selected areas of clinical practice will be measured via formative and summative assessment that employs quantitative measures. Impact of the skill improvement to the organization and profession will be demonstrated.
Prereq: Permission.

**AT 642 Clinical Residency and Analysis of Patient Care III**
6 credits
This course is designed to critically assess clinical skills and improve patient care of the practicing healthcare professional in a mentor guided model. Improvement in selected areas of clinical practice will be measured via formative and summative assessment that employs quantitative measures. Impact of the skill improvement to the organization and profession will be demonstrated.
Prereq: Permission.

**AT 643 Clinical Residency and Analysis of Patient Care IV**
6 credits
This course is designed to critically assess clinical skills and improve patient care of the practicing healthcare professional in a mentor guided model. Improvement in selected areas of clinical practice will be measured via formative and summative assessment that employs quantitative measures to demonstrate improved patient care. Impact of the skill improvement to the organization and profession will be demonstrated. Summary of all impact of clinical residencies will be presented to the participant’s organization.
Prereq: Permission.