CERTIFIED UPPER EXTREMITY SPECIALIST

Course Syllabus

Advanced clinical reasoning, differential examination, movement analysis, and specialist-level management of upper extremity conditions

Course Overview

The Certified Upper Extremity Specialist Course is an 8-week hybrid, specialist-level course designed to help clinicians move beyond routine shoulder, elbow, wrist, and hand management and make stronger decisions in complex upper extremity cases. Upper extremity presentations rarely live in one clean category: local tissue pathology, cervical referral, peripheral nerve involvement, scapulothoracic contribution, tissue capacity, movement coordination, sport or work demands, irritability, and patient expectations often interact. This course trains participants to synthesize the subjective examination, symptom behavior, medical and neurologic screening, regional examination, movement analysis, functional testing, reassessment, and evidence-informed intervention strategies into a clear plan of care.

Course emphasis

This is not a protocol course, and it is not a general review of upper extremity diagnoses. It is an advanced reasoning and skill-development course focused on the decisions clinicians make when shoulder, elbow, wrist, hand, neural, and sport-related presentations are layered, uncertain, or not responding as expected. Participants will practice identifying the most meaningful clinical driver, selecting tests that answer a specific question, matching intervention to patient presentation, and using reassessment to progress, regress, modify, refer, or pivot.

Course Details

Item	Details
Course format	Asynchronous lectures and readings, four live virtual discussions, case-based reasoning activities, and an in-person weekend intensive.
Virtual didactic course	May 3 - June 27
Live virtual discussions	May 13, May 27, June 10, and June 24 from 7:00-9:00 PM EST
In-person weekend intensive	June 26-June 27
Location	1 New London Ave, Cranston, RI 02920
Course materials	All assigned materials are available through the learning management system, Talent. Participants are responsible for reviewing materials before live sessions.

Course Instructors

Role	Instructor
Primary Instructor	Jack Dixon, PT, DPT, OCS JDixon@highbarhealth.com 443-223-5619
Faculty Adjunct	Conor Bray Cbray@highbarhealth.com

Course Purpose

This course is designed to strengthen the clinician's ability to operate at a specialist level when evaluating and treating upper extremity conditions. By the end of the course, participants should be better prepared to:

- Develop a defensible working hypothesis from the subjective examination, symptom behavior, irritability, regional contribution, function, tissue capacity, sport or work demands, and patient context.
- Prioritize examination procedures based on the clinical question they answer rather than relying on a memorized checklist or diagnosis-based routine.
- Differentiate competing local tissue, neural, mobility, motor control, load-capacity, instability, movement coordination, postoperative, sport-specific, and contextual drivers of upper extremity symptoms.
- Link examination findings to treatment decisions, reassessment markers, progression criteria, return-to-activity planning, referral criteria, and clear next steps.
- Use anatomy, biomechanics, pathophysiology, pain science, regional interdependence, tissue healing, and evidence-informed practice as clinical context rather than rigid rules.
- Apply education, manual therapy, exercise, symptom modification, motor control retraining, tendon loading, neural mobility, activity modification, bracing considerations, and functional progression with greater specificity.
- Communicate clinical reasoning in a way that improves patient understanding, confidence, adherence, and self-management.

Course Learning Objectives

1. Integrate relevant anatomy, biomechanics, pathophysiology, pain science, tissue healing, and clinical practice guidelines into upper extremity management.
2. Use patient history and symptom behavior to generate, prioritize, and revise working hypotheses across shoulder, elbow, wrist, hand, and neural presentations.
3. Select objective tests based on the clinical decision each test is meant to inform.
4. Differentiate common and complex upper extremity presentations, including rotator cuff-related pain, shoulder instability, overhead athlete presentations, adhesive capsulitis, peripheral nerve entrapments, selected elbow conditions, and selected wrist and hand conditions.
5. Interpret imaging, structural findings, diagnostic labels, and surgical history as clinical context rather than stand-alone explanations for pain or disability.
6. Apply evidence-informed treatment strategies with an appropriate match between suspected driver, patient goals, irritability, tissue capacity, task demands, and response to care.
7. Use reassessment and symptom modification to determine whether to continue, progress, regress, modify, refer, or abandon a working hypothesis.
8. Communicate advanced clinical reasoning clearly to patients, peers, and faculty.

Course Structure

The course is organized into four two-week learning blocks. Each block integrates assigned lectures, required readings, case-based discussion, clinical reasoning activities, and knowledge checks or assignments as directed by faculty.

Learning component	Primary role	Expected learner focus
Asynchronous lectures and readings	Build advanced foundation	Develop shared language, regional anatomy, screening principles, shoulder-to-hand examination logic, evidence-informed concepts, and a framework for specialist-level reasoning.
Live virtual discussions	Pressure-test reasoning	Think through cases, explain decisions, support clinical priorities, and revise hypotheses as new information emerges.
Case-based activities and knowledge checks	Reinforce application	Use course concepts to make clinical decisions rather than simply recall diagnoses, special tests, or technique names.
In-person weekend intensive	Convert reasoning into skill	Practice examination, symptom modification, treatment selection, manual techniques, exercise progression, reassessment, and real-time clinical adaptation.

The weekend intensive is designed to help participants apply the reasoning process in a hands-on environment, where regional examination findings, symptom modification, manual techniques, exercise selection, task demands, patient response, and reassessment all inform the next clinical decision.

Expected Preparation

- Complete assigned lectures and readings before each live virtual discussion.
- Come prepared to discuss cases, support clinical decisions, and consider alternative hypotheses.
- Participate actively in breakout groups and discussion activities.
- Practice clinical reasoning rather than simply naming diagnoses or special tests.
- State uncertainty, commit to a working hypothesis, and revise that hypothesis when new information does not fit.

Virtual Discussion Expectations

Live virtual discussions are designed for application, not lecture review. Participants should expect to work through cases, think out loud, support clinical priorities, and refine their plan as the case evolves.

- Identify a working hypothesis and the history features that support it.
- Interpret symptom behavior, irritability, functional limitations, regional contributions, sport or work demands, and neurologic or medical screening considerations.
- Explain how imaging, diagnostic labels, surgical history, tissue healing, or contextual information influences reasoning without allowing it to replace the clinical exam.
- Choose a first test, marker movement, or symptom modification strategy and explain why it earns priority.
- Link test findings to a treatment decision and a clear reassessment marker.
- Identify what would trigger a progression, regression, modification, referral, or pivot in the plan of care.

> **The expectation is not perfect certainty.**
>
> Specialist-level reasoning does not mean having the perfect answer immediately. It means making a reasonable decision, explaining your rationale, listening to alternative viewpoints, and updating your thinking when the findings, movement response, tissue capacity, or patient goals demand it.

Attendance and Make-Up Policy

Participants are expected to attend all live virtual discussions and the in-person weekend intensive.

If a participant is unable to attend a virtual discussion, they must review the recorded session and complete the assigned make-up reflection or activity within one week of the missed session.

To maintain course credit, participants may not miss more than one virtual discussion per management course unless otherwise approved by faculty.

Assessment and Completion Requirements

Assessment is intended to reinforce advanced clinical reasoning and application. Participants may be evaluated through open-book knowledge checks, case-based reasoning activities, reflective assignments, virtual discussion participation, lab participation, and practical application.

- Knowledge checks: Each block may include a short open-book/notes knowledge check covering assigned lectures and readings. Unless otherwise directed, knowledge checks are due by 11:59 PM EST on Sunday of the block's second week.
- Course completion: Participants must complete assigned asynchronous materials, attend required sessions or approved make-up work, participate in the weekend intensive, and demonstrate professional engagement.

Professional Expectations

- Engage respectfully with faculty and peers.
- Come prepared for discussion and lab activities.
- Use evidence and clinical reasoning to support decisions.
- Participate actively in breakout groups and lab practice.
- Remain open to feedback and clinical uncertainty.
- Communicate professionally during all course activities.

Course Materials

All course materials will be posted in Talent. Participants are responsible for downloading and reviewing assigned materials before each learning block, virtual discussion, and lab session.

Clinical Reasoning Standard

How strong performance is demonstrated

Strong specialist-level performance is demonstrated by forming a defensible working hypothesis, choosing tests that matter, connecting findings to treatment decisions, reassessing honestly, and changing course when the patient's presentation, movement response, tissue capacity, or task demands require it. The strongest clinicians can explain what they think, why they think it, what would change their mind, and how the next step serves the patient.

Course Takeaway

By the end of this course, participants should not simply know more about upper extremity conditions. They should be better able to reason through overlapping presentations, identify what matters most, choose interventions with intent, and adapt care based on meaningful reassessment. The goal is clearer rehab, better clinical decisions, and more confident specialist-level management of the upper extremity patients clinicians see every day.