Mobile CRM Education:
Custom Training at Your Facility

INSTRUCTOR

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COURSE OVERVIEW

Over the past thirty years, ATI has been a go-to resource for education in the cardiac rhythm management space. The Jumpstart program originally began as an in-person-only course, but over time has evolved into both an online and in-person course. The new online/in-person Jumpstart Hybrid course offers all of the benefits and features of the online course, including over 40 hours of lectures, interactive online learning modules, assessments, programmer tutorials and demos.

For our on-site courses, students will be provided with access to our Online Jumpstart Program and On-Site Course Prep Work prior to ATI staff visiting your site for hands-on training. ATI can accommodate up to six programmer stations, therefore we recommend class sizes of six to twelve to ensure each student has ample hands-on time with the programmers. ATI will provide patient simulators, lectures, workbooks, worksheets and devices representing all four companies, as well as different device types (pacemakers, ICD's, CRT-P's and CRT-D's). Site provides:

- Conference room with space to accommodate students, programmers, instructor
- Audio/visual equipment for lecture materials and guided examples on programmers (specs?)
- Programmers from each of the four companies, up to six
- Whiteboard, or space for instructor to provide hand-written visual aids during lectures
- Copy machine

On the next pages of this document, you will find the syllabus for our online course, as well as a sample agenda for the in-person course. Content can be changed based on your clinic's needs. If there are specific areas of focus your staff requires or requests, please provide those requests to ATI by one month prior to your on-site training. We also ask that students take an assessment as part of their pre-work in order to determine their current skill level. This data will be considered as we customize your course.

Program Cost:

- Instructor Fee: $2000
- $3200 per student (includes 40 hour self-paced online course and 4 day in-person course at your site

We look forward to visiting you!

CRM ONLINE JUMPSTART SYLLABUS	APPROXIMATE RECORDED DURATION	ESTIMATED TIME TO COMPLETE
Unit 1: Cardiac A&P, Pathophysiology and Electrocardiography	**10 hours 45 min Total**	**25 hours Total**
Cardiac Anatomy and Physiology	1 hour	3 hours
ECG's and Normal Conduction	2 hours 15 min	5 hours
Sick Sinus Syndrome	45 min	2 hours
Escape Rhythms	45 min	2 hours
Atrial Arrhythmias	1 hour	3 hours
Heart Blocks	1 hour	3 hours
Ventricular Arrhythmias	45 min	2 hours
ECG Review and Strip Analysis Lecture	1 hour 15 min	3 hours
Unit 1 Resources	2 hours	2 hours
Unit 2: Pacemakers and Loop Recorders	**31 hours Total**	**40 hours Total**
Loop Recorder Overview Lecture	1 hour	1 hour
Nuts and Bolts of Cardiac Pacing: The Pacemaker System	20 min	1 hour
Nuts and Bolts of Cardiac Pacing: Pacing Leads	20 min	45 min
Pacemaker Indications	20 min	45 min
Pacemaker Modes and Codes	20 min	45 min
Nuts and Bolts of Cardiac Pacing: Review and Strip Analysis Lecture	45 min	1 hour 30 min
Recognizing Appropriate Pacing and Sensing Lecture	1 hour	2 hours
Single Chamber Timing Cycles	1 hour 30 min	3 hours
Dual Chamber Timing Cycles	1 hour 30 min	3 hours
The Four Faces of DDD	30 min	1 hour
Introduction to Device Follow-Up	45 min	2 hours
Sensing and Threshold Basics with Paul	35 min	2 hours
Checking Battery Status and Lead Impedance	30 min	1 hour
Determining Underlying Rhythm and Sensing	45 min	1 hour 30 min
Threshold Testing	45 min	1 hour 30 min
Controlling the Atrium with Paul	20 min	40 min
Rate Response and Heart Rate Diagnostics	1 hour, 30 min	3 hours
Pacemaker Programming and Troubleshooting with Jim	2 hours	4 hours
Device Case Studies with Paul	45 min	1 hour 30 min
Programmer Demos	4 hours	4 hours
Unit 2 Resources	2 hours	2 hours

Unit 3: Implantable Cardioverter Defibrillators	5 hours Total	10 hours Total
ICD Detection and Discriminators	1 hour 30 min	3 hours
Stored EGM Analysis	1 hour 35 min	3 hours
ICD Programming and Troubleshooting	2 hours	4 hours
Unit 4: Cardiac Resynchronization Therapy	1 hour 30 min Total	3 hours Total
CRT Programming and Follow-Up	1 hour 30 min	3 hours
Final Exam	4 hours	4 hours
All Units and Resources	52 hours Total	83 hours Total

Day 1

9 am: Welcome, Introductions and "Lab" Etiquette

9:30 am: Review of Online Material and Pre-Work

10:30 am: Break

10:45 am: The Normal Device Check

Review of lead measurements and data considered within normal limits for devices and basic navigation on each programmer; safety margins

12:00 pm: Lunch

12:45 pm: The Four Faces of DDD

Underlying rhythm recognition; indications review; hands-on practice changing settings to move through the four faces of DDD; reducing RV pacing

2:30 pm: Break

2:45 pm: Sensitivity and Sensing Issues

Recognizing appropriate and inappropriate sensing; hands-on sensitivity testing; hands-on sensitivity troubleshooting; guided examples and open lab

5:00 pm: End of Day 1

Day 2

8:00 a.m. Thresholds, Loss of Capture and Capture Assessment

Threshold concepts; recognizing loss of capture; threshold testing; hands-on threshold testing and troubleshooting; guided examples and open lab

10:00 a.m. Break

10:15 a.m. PMT and Upper Rate Behavior

PMT and upper rate behavior lecture with guided examples and hands-on practice

12:00 pm Lunch

12:45 pm Rate Response Concepts and Guided Examples

An overview of the types of rate response offered by each company; as well as guided navigation exercises to practice addressing rate response issues.

2:00 pm Break

2:15 pm ICD Concepts and Navigation

Lecture review of ICD indications, programming, discriminators and therapy; practice ON/OFF for therapy; guided navigation

3:45 pm Break

4:00 pm Stored EGM Analysis

5:00 pm End of Day 2

Day 3

8:00 am Atrial Arrhythmias, Mode Switching and Atrial Therapies

Recognizing atrial arrhythmias; mode switching; atrial arrhythmia prevention and therapy; atrial arrhythmia troubleshooting

9:15 am Break

9:30 am CRT Concepts and CRT Programmer Navigation

Lecture on heart failure and CRT basics; additional considerations for CRT patients; CRT programmer navigation and troubleshooting

10:30 am Acute Troubleshooting

Overview of common acute troubleshooting issues, guided and open lab troubleshooting practice

12:00 pm Lunch

1:00 pm Chronic Troubleshooting

Overview of common chronic troubleshooting issues, guided and open lab troubleshooting practice

2:45 pm Break

3:00 pm Report Writing Practice

Hands-on activity practicing writing reports; guided programmer follow-up with normal device function and troubleshooting scenarios; stored EGM reporting

Day 4

9:00 am Open Lab and 1:1 Instructor Observation

Open lab with mix of troubleshooting and normal function scenarios; each student will practice a complete device check with instructor observation

12:00 pm Lunch

1:00 pm Capstone Lab I

Half of the class will complete six simulated device checks with varying levels of difficulty, the other half of the class will complete report writing exercises

3:00 pm Capstone Lab II

Half of the class will complete six simulated device checks with varying levels of difficulty, the other half of the class will complete report writing exercises

5:00 pm End of Course