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Sunday, March 24 | 6:30–8:30 PM Location: Main Event (9101 INTERNATIONAL DRIVE)

Kick off your SANS 2024 experience at the Welcome Reception, taking place at Main Event, located in Pointe Orlando just 0.3 miles from the Hyatt Regency! Be part of this exciting event and join us for a community gathering you won't want to miss. Play games, share stories, network with fellow attendees and faculty, and learn how to make the most out of your week in Orlando, FL. It will be a fun, relaxed evening and a great way to start your week of training with us. Beverages (adult and otherwise) and bites will also be served. We hope to see you there!

Extend Your Training



Add an OnDemand Bundle to your course.

Extend Your Training Experience with an OnDemand Bundle

- Four months of supplemental online review
- 24/7 online access to your course lectures, materials, quizzes, and labs
- Subject-matter-expert support to help you increase your retention of course material

OnDemand Bundle price: \$979

sans.org/ondemand/bundles

Validate Your Training



Add a GIAC Certification attempt to your course.

Get Certified with GIAC Certifications

- Distinguish yourself as an information security leader
- 30+ GIAC cybersecurity certifications available
- Two practice exams included
- Four months of access to complete the attempt

GIAC Certifications Bundle price: \$979

giac.org

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GENERAL INFORMATION

Venue

Hyatt Regency Orlando

9801 International Drive Orlando, FL 32819 Phone: 407-284-1234

Event Check-In | Badge & Courseware Distribution

Location: Regency TUV (CONVENTION LEVEL)

Saturday, March 23	. 4:00-6:00 PM
Sunday, March 24	. 7:00-8:30 AM

Registration Support

Location: Celebration 10 (CONVENTION LEVEL)

Sunday, March 24-Thursday, March 28	8:00	AM-5:30	PM
Friday, March 29	8:00	AM-2:00	РМ

Course Breaks

Morning Coffee	7:00–9:00 AM
Morning Break*	10:30-10:50 AM
Lunch (ON YOUR OWN)	12:15–1:30 PM
Afternoon Break*	3:00–3:20 PM

^{*}Snack and coffee to be provided during these break times.

Parking

Overnight parking is available for \$35 plus tax per night with in-and-out privileges.

If you are an overnight hotel guest, this credit will be applied to your room. If you are driving in daily, please visit the Event Management Office to pick up your discount tickets.*

*Arrival ticket will still be required to depart the parking garage – the discount ticket needs to be placed into the machine after the arrival ticket to receive the discount.

Photography Notice

SANS may take photos of classroom activities for marketing purposes. SANS 2024 attendees grant SANS all rights for such use without compensation, unless prohibited by law.

Feedback Forms and Course Evaluations

SANS is committed to offering the best information security training, and that means continuous course improvement. Your student feedback is a critical input to our course development and improvement efforts. Please take a moment to complete the electronic evaluation posted in your class Slack channel each day.

Wear Your Badge

To confirm you are in the right place, SANS Work-Study participants will be checking your badge for each course and event you enter. For your convenience, please wear your badge at all times.

Bootcamp Sessions and Extended Hours

The following classes have evening bootcamp sessions or extended hours. For specific times, please refer to pages 4–6.

Bootcamps (Attendance Mandatory)

LDR414: SANS Training Program for CISSP® Certification

SEC401: Security Essentials: Network, Endpoint, and Cloud

SEC503: Network Monitoring and Threat Detection In-Depth

SEC510: Cloud Security Controls and Mitigation

SEC511: Continuous Monitoring and Security Operations

SEC540: Cloud Security and DevSecOps Automation

SEC660: Advanced Penetration Testing, Exploit Writing, and

Ethical Hacking

Extended Hours:

SEC501: Advanced Security Essentials – Enterprise Defender

SEC504: Hacker Tools, Techniques, and Incident Handling

COURSE SCHEDULE

Time: 9:00 AM-5:00 PM (Unless otherwise noted) NOTE: All classes begin at 8:30 AM on Day 1 (Sunday, March 24)

AUD507: Auditing Systems, Applications, and the Cloud (6-DAY COURSE) Clay Risenhoover Celebration 15 (CONVENTION LEVEL
FOR498: Digital Acquisition and Rapid Triage (6-DAY COURSE) Eric Zimmerman
FOR500: Windows Forensic Analysis (6-DAY COURSE) Ovie Carroll
FOR508: Advanced Incident Response, Threat Hunting, and Digital Forensics (6-DAY COURSE) Carlos Cajigas & Peter OrtizWindermere W (CONVENTION LEVEL)
FOR509: Enterprise Cloud Forensics & Incident Response (6-DAY COURSE Pierre Lidome
FOR518: Mac and iOS Forensic Analysis and Incident Response (6-DAY COURSE) Sarah Edwards
FOR572: Advanced Network Forensics: Threat Hunting, Analysis, and Incident Response (6-DAY COURSE) Philip Hagen
FOR578: Cyber Threat Intelligence (6-DAY COURSE) Kevin Ripa
FOR585: Smartphone Forensic Analysis In-Depth (6-DAY COURSE) Domenica Crognale Celebration 1 (CONVENTION LEVEL
ICS410: ICS/SCADA Security Essentials (6-DAY COURSE) Justin Searle
LDR414: SANS Training Program for CISSP® Certification (6-DAY COURS David R. Miller
LDR512: Security Leadership Essentials for Managers (5-DAY COURSE) Kevin Garvey
LDR514: Security Strategic Planning, Policy & Leadership (5-DAY COURSI Mark Williams
LDR516: Building and Leading Vulnerability Management Programs (5-DAY COURSE)

LDR520:	Cloud Security for Leaders (5-DAY COURSE) Jason Lam
LDR551:	Building & Leading Security Operations Centers (5-DAY COURSE) John Hubbard
SEC301:	Introduction to Cyber Security (5-DAY COURSE) Doc Blackburn & Rich Greene
SEC401:	Security Essentials: Network, Endpoint & Cloud (6-DAY COURSE) Bryan Simon
SEC450:	Blue Team Fundamentals: Security Operations and Analysis (6-DAY COURSE) Seth Misenar
SEC488:	Cloud Security Essentials (6-DAY COURSE) Kenneth G. Hartman
SEC497:	Practical Open-Source Intelligence (OSINT) (6-DAY COURSE) Matt Edmondson
SEC501:	Advanced Security Essentials – Enterprise Defender (6-DAY COURSE) Dave Shackleford
SEC503:	Network Monitoring & Threat Detection In-Depth (6-DAY COURSE) Andrew Laman
SEC504:	Hacker Tools, Techniques & Incident Handling (6-DAY COURSE) Joshua Wright
SEC505:	Securing Windows and PowerShell Automation (6-DAY COURSE) Jason Fossen
SEC510:	Cloud Security Controls and Mitigations (5-DAY COURSE) Brandon Evans
SEC511:	Continuous Monitoring and Security Operations (6-DAY COURSE) Eric Conrad

Jonathan RistoBayhill 18 (LOBBY LEVEL)

COURSE SCHEDULE

SEC530:	Defensible Security Architecture & Engineering: Implementing Zero Trust for the Hybrid Enterprise (6-DAY COURSE) Greg Scheidel
SEC540:	Cloud Security & DevSecOps Automation (5-DAY COURSE) Jon Zeolla
SEC541:	Cloud Security Attacker Techniques, Monitoring, and Threat Detection (5-DAY COURSE) Ryan Nicholson & Ryan Thompson
SEC542:	Web App Penetration Testing and Ethical Hacking (6-DAY COURSE) Aaron Cure
SEC549:	Cloud Security Architecture (5-DAY COURSE) Eric Johnson
SEC560:	Enterprise Penetration Testing (6-DAY COURSE) Jeff McJunkinBayhill 21 (LOBBY LEVEL)
SEC565:	Red Team Operations & Adversary Emulation (6-DAY COURSE) Jean-Francois Maes
SEC573:	Automating Information Security with Python (6-DAY COURSE) Mark Baggett
SEC588	Cloud Penetration Testing (6-DAY COURSE) Moses Frost
SEC595:	Applied Data Science & Al/Machine Learning for Cybersecurity Professionals (6-DAY COURSE) David Hoelzer
SEC599:	Defeating Advanced Adversaries – Purple Team Tactics & Kill Chain Defenses (6-DAY COURSE) Erik Van Buggenhout Celebration 12 (CONVENTION LEVEL)
SEC660:	Advanced Penetration Testing, Exploit Writing, and Ethical Hacking (6-DAY COURSE) Stephen Sims
SEC670:	Red Teaming Tools – Developing Windows Implants, Shellcode, Command, and Control (6-DAY COURSE) Jonathan Reiter

SANS CYBER RANGES

Develop and practice real-world skills to be prepared to defend your environment.

NETWARS

Wednesday, March 27 & Thursday, March 28 6:30–9:30 PM | Windermere X (CONVENTION LEVEL)

NETWARS CYBER DEFENSE

Wednesday, March 27 & Thursday, March 28 7:15–10:15 PM | Windermere W (CONVENTION LEVEL)



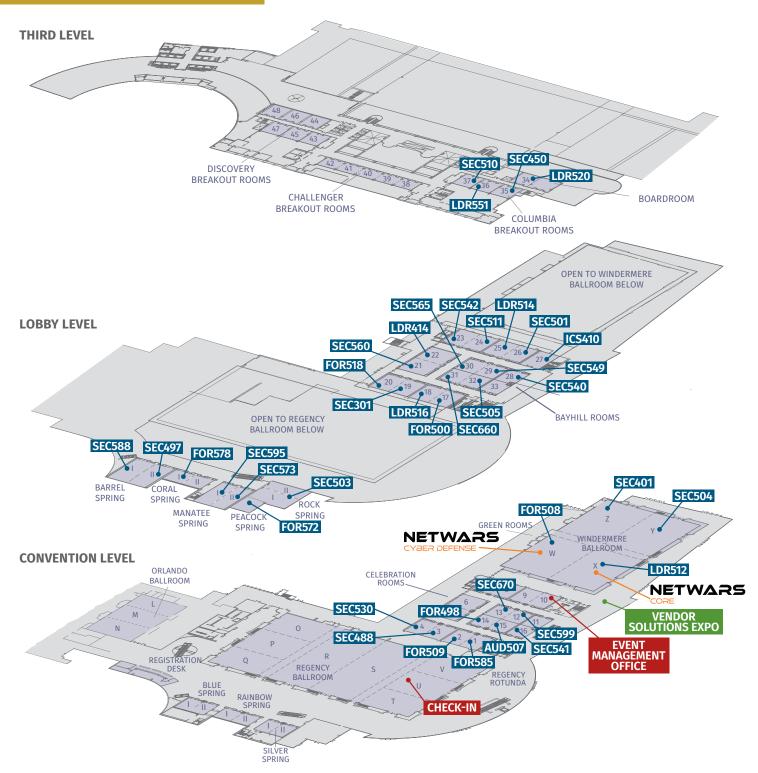
NetWars takes the concepts in the class and gives you an opportunity to put them into action. Highly recommended!

—Kyle McDaniel, **Lenovo**

All In-Person students who registered to attend a course at SANS 2024 are eligible to play NetWars for FREE.

Space is limited. Please register for NetWars through your SANS Account Dashboard.

HOTEL FLOOR PLAN



Enrich Your SANS Experience!

Talks by our faculty and selected subject-matter experts help you broaden your knowledge, get the most for your training dollar, and hear from the voices that matter in network and computer security.

LUNCH & LEARN

GIAC Exam Tips and Tricks

Monday, March 25 | 12:30–1:15 PM Location: Celebration 6 (CONVENTION LEVEL)

Speakers: Brian Corcoran, Director of Business Process &

Operations, GIAC, GSEC, GCIH, GWAPT

Jason Bohreer, Director on Information Security, Milliman

Medinsight, MS, CISSP, GSE

GIAC Certifications is the leading provider and developer of information security certification. GIAC test and validates the ability of practitioners in cyber defense, pen testing, forensics, software security, management, and ICS. Join the session to hear about:

- · Certification benefits
- Exam preparation tips
- · Keeping current
- · and more

GIAC Certification staff will be present to answer all your questions before and after the presentation.

Registration is required in advanced. Capacity is limited.

SPONSORED EVENT

CrashPlan Lunch & Learn

CrashPlan

Monday, March 25 | 12:30–1:15 PM Location: Barrel Spring I (LOBBY LEVEL)

Speaker: Todd Thorsen

SPONSORED EVENT

Hyperproof Lunch & Learn



Monday, March 25 | 12:30–1:15 PM Location: Barrel Spring II (LOBBY LEVEL)

Speakers: Kayne McGladrey and Mark Bradford

KEYNOTE PANEL DISCUSSION

Ask the Experts: How to Grow Your Success in Cybersecurity

Monday, March 25 | 6:30-7:30 PM Location: Windermere X (CONVENTION LEVEL)

PANEL MEMBERS:

Ed Skoudis – SANS Fellow, Founder of the SANS Penetration Testing Curriculum and Counter Hack

TJ O'Connor – Cybersecurity Program Chair

Matt Swenson – North America Chief Executive Officer, BlackRainbow Inc.

Laura Rubler – Cybersecurity Analyst/Digital Forensic Examiner, Mission Systems Security Center

Learn and hear stories from a mixture of our top GSE experts, security leaders, and cyber talent managers on how you can apply their experiences and career journey to maximize your own success. Learn tips and tricks that focus on:

- Best practices in being successful in the cybersecurity industry
- How to maximize your learning and certification in the marketplace
- How to grow as your career progresses
- Trends in cybersecurity

Ask the experts with a focus on how we can improve your professional development with a lively discussion with panel members who are top of their field in both technical and managerial, including security leaders and some of the folks who have gone through the grueling process of receiving the GSE which is the hardest certification in all of cybersecurity.

SPONSORED EVENT

Recorderd Future Lunch & Learn

·III. Recorded

Monday, March 25 | 12:30–1:15 PM Location: Manatee Spring II (LOBBY LEVEL)

Speaker: Richard LaTulip

SANS@NIGHT

Cracking the Code: The Role of Programming in Information Security

Monday, March 25 | 7:45–8:45 PM Location: Windermere X (CONVENTION LEVEL) Speaker: Mark Baggett, Senior Instructor

From one of our early GIAC Security Experts (GSEs), SANS Senior Instructor, Mark Baggett, will explore an unpatched vulnerability within Windows, one that attackers can likely exploit to bypass your defenses. Through the lens of this attack, he'll address a significant question: "Are programming skills a requisite for excelling in the field of information security?" Recent research indicates that approximately 20% of entry-level positions in information security demand proficiency in programming. Yet, the ongoing debate in online forums highlights the uncertainty surrounding the necessity of coding skills. Join Mark as we navigate through this discussion, who has vast experience on various cybersecurity roles through his certifications and work experience, examining the intricate relationship between coding expertise and achieving success in the realm of information security.

SANS@NIGHT

Attacks in the Cloud: What's Old is New and What's New is New

Monday, March 25 | 7:45-8:45 PM Location: Windermere W (CONVENTION LEVEL) Speaker: Ryan Nicholson, Certified Instructor

The cloud landscape is always changing, and organizations that focus on old-school attacks will catch some, but not all of them. This talk will look at how the attack surface changes in a public cloud, and we will focus in on three attack scenarios as examples. Join Ryan Nicholson, who holds multiple GIAC certifications and others, where he will discuss how the attacks work and how to protect and detect them. If you are a cloud novice or expert, you will find something new to take back to work.

SPONSORED EVENT

Vendor Solutions Expo - Breakfast

Tuesday, March 26 | 7:30–9:00 AM Location: Windermere Foyer (CONVENTION LEVEL)

SPONSORED EVENT

Vendor Solutions Expo – Lunch

Tuesday, March 26 | 12:15–1:30 PM Location: Windermere Foyer (CONVENTION LEVEL)

RECEPTION

SANS 2024 AlumNight: Powered by GIAC + Offensive Operations

Tuesday, March 26 | 5:30–6:30 PM Location: Upper Deck Pool (4TH LEVEL)

"Once a SANS Alumni, Always a SANS Alumni"

Embark on your cybersecurity journey and make it unforgettable! Whether it's your first SANS event or you're returning for the fourth time, join us for the industry's premier gathering of cybersecurity professionals. Experience an electrifying celebration where networking, food, drinks, giveaways, and dynamic expert discussions converge. Connect with fellow SANS Alumni and Instructors, creating a vibrant atmosphere that unites both inperson students and local community experts. This is more than an event; it's an immersive experience that fuels your passion for cybersecurity and fosters invaluable connections.

Plus, stay for one of two hands-on bonus sessions following the reception:

- SANS@Night Talk: Behind the Curtain on Authoring SEC504 with Joshua Wright, Faculty Fellow
- SANS WORKSHOP: An Intro to C for Windows with Jonathan Reiter, Certified Instructor

Registration is required in advance for AlumNight reception and workshop admittance. Capacity is limited for all engagements.

SANS@NIGHT

Behind the Curtain on Authoring SEC504

Tuesday, March 26 | 6:45–7:45 PM Location: Manatee Spring I (LOBBY LEVEL) Speaker: Joshua Wright, SANS Faculty Fellow

What does it take to write a successful SANS class? What kind of decision making goes into choosing the subject matter to cover, and what gets cut? What kind of rigor goes into ensuring that students leave with the skills that will fulfill the SANS promise? As the author of SANS SEC504: Hacking Tools, Techniques, and Incident Handling, these are questions I ask myself every day. Join me as I pull back the curtain on the technology, the platforms, and the successes and failures that go into writing a SANS course, and how you can apply these lessons for your own skill development and personal growth.

WORKSHOP

An Intro to C for Windows

Tuesday, March 26 | 6:45–8:45 PM Location: Manatee Spring II (LOBBY LEVEL) Hosted by: Jonathan Reiter, SANS Certified Instructor

Interested in learning the C programing language from an offensive security expert that builds custom tools for command and control? Join SANS Instructor, Jonathan Reiter, for this Windows focused introduction to C! This workshop will cover basic items such as, setting up Visual Studio Community, creating a project, developing your first project, and more. You will then dive into C itself covering data types, the anatomy of a function, statements, variables, directives, and debugging.

Prior to the workshop, download the workshop instructions here: https://sansurl.com/intro-to-c-lab-instructions

Following the presentation, the workshop concludes with a hands-on exercise in which you will directly apply the concepts discussed—all part of a simulated incident response scenario!

Registration is required in advance of workshop. Capacity is limited.

SANS@NIGHT

A Look at the Current Threat Landscape... And How AI Plays a Part

Tuesday, March 26 | 7:45–9:15 PM Location: Manatee Spring I (LOBBY LEVEL) Speaker: Stephen Sims, SANS Faculty Fellow

In this talk, we'll take a look at the current threat landscape, and how attackers are using AI to better their tooling, evasion techniques, and speeding up their time to find and weaponize exploits. Has cybersecurity greatly matured, yes! However, it has forced attackers to advance their skills as well, and they are using all options available to remain stealthy and undermine your defenses. Join me as we take a look at the state of these things.

SPECIAL EVENT

SANS 2024 Puppy Cuddle Break

Wednesday, March 27 | 12:00–2:00 PM Location: Windermere Foyer (CONVENTION LEVEL)

Come join the Pet Alliance of Greater Orlando for a fun, stressbusting cuddle with some cute and adoptable puppies! Take a break from the firehose that is SANS training to rejuvenate with our furry friends before returning to class, and maybe even take home a new life-long best friend.

SPONSORED EVENT

AT&T Cybersecurity Lunch & Learn

AT&T Cybersecurity

Wednesday, March 27 | 12:30–1:15 PM Location: Barrel Spring I (LOBBY LEVEL)

SPONSORED EVENT

Corelight Lunch & Learn



Wednesday, March 27 | 12:30–1:15 PM Location: Barrel Spring II (LOBBY LEVEL)

Speaker: Robert Henry, Cybersecurity Engineering SME

SANS@NIGHT

GIAC GX-PT Question Walkthrough - With The Expert!

Wednesday, March 27 | 6:00–7:00 PM Location: Manatee Spring II (LOBBY LEVEL)

Speaker: Jeff McJunkin, SANS Principal Instructor

GIAC certifications are recognized among the most highly respected in the industry, required or desired by organizations around the world. Want to see how the experts approach these difficult exams? Join SANS Principal Instructor Jeff McJunkin for a live display of how he would approach some of the complex practical questions from the GIAC Experienced Penetration Tester (GX-PT) Applied Knowledge Certification.

GIAC Applied Knowledge Certifications are designed to provide a more comprehensive and rigorous assessment of knowledge and skills. All practical and requiring demonstration of proficiency within real-world scenarios. The GX-PT Certification demonstrates that a candidate has seasoned, hands-on red team and purple team skills, validating their ability to map networks, identify vulnerabilities, and exploit hosts in various environments.

AND, we'll be giving away a **free Applied Knowledge certification attempt** after the presentation! (Giveaway is not limited to GX-PT)

Watch Jeff navigate these questions live, on the spot, to observe approach, methodology, and tips for how he would navigate some of the most complicated and sought after certifications in the world.

SANS@NIGHT

Swashbuckling Through Cyberspace: Arr-chitecting SOC Teams and Tactics to Navigate Uncharted Waters

Wednesday, March 27 | 7:15-8:15 PM Location: Manatee Spring I (LOBBY LEVEL)

Speaker: John Hubbard, SANS Senior Instructor

Ahoy matey! Are ye setting off to sail the cyber seas but unsure of yer treasure map or the seaworthiness of yer vessel? Are ye strugglin' to muster a hearty crew? In need of counsel from a seasoned sea dog, are ye? Aye, if that be yer quest, this dead man's tale's for you! We'll be shorin' up yer venture by recruiting a fearless SOC crew, readying yer ship and tools, and charting a course through the treacherous online seas towards the island of SOC riches. So join John Hubbard, multiple GIAC certified holder, to hoist the mainsail, sharpen your cutlass, and prepare for battle!

Yo, ho, ho! A pirate's life is for me (and you)!

SANS@NIGHT

Understanding the Risk Management Mandates in 2024 Cybersecurity Regulations

Wednesday, March 27 | 8:15–9:15 PM Location: Manatee Spring II (LOBBY LEVEL)

Speaker: James Tarala, SANS Senior Instructor

In this presentation, James Tarala, a GSE from the SANS Institute, will delve into the new risk assessment requirements of many recent regulatory changes. Cybersecurity regulators are becoming increasingly focused on organizations performing formal risk assessments, but it is often unclear what is explicitly required of organizations. This presentation will thoroughly explore the latest directives from influential regulatory bodies, including the Securities and Exchange Commission (SEC), New York's Department of Financial Services (NYDFS), and the European Union's ENISA under its NIS2 framework. We aim to clarify these complex regulations and examine their implications for businesses of all sizes. By attending this session, you will gain valuable insights into the essential aspects of these guidelines.

Our discussion will not only cover the theoretical aspects of these regulations but also focus on practical solutions to ensure your organization's compliance. We understand the challenges businesses face in navigating the shifting regulatory landscape, and our session is designed to provide actionable strategies for enhancing your organization's cyber defenses. Whether you want to refine your current cybersecurity strategies or understand how these new regulations affect your operations, this presentation will be invaluable. Stay ahead in the dynamic field of cybersecurity risk by joining us for an informative and enlightening session that promises to enhance your organization's resilience against cyber threats.

SAVE THE DATE

SANS 2025 is returning to Hyatt Regency Orlando **April 13–18, 2025**

Upcoming SANS Training Events

New York City Spring	New York, NY	Hybrid	Apr 8–13
Cyber Security Pacific: April		Virtual	Apr 8–13
Pen Test Austin	Austin, TX	Hybrid	Apr 22–27
Baltimore Spring	Baltimore, MD	Hybrid	Apr 28–May 3
Security West	San Diego, CA	Hybrid	May 9-14
Leadership & Cloud Security	Arlington, VA	Hybrid	May 20-24
Attack & Respond		Virtual (CT)	May 20-25
Stay Sharp: May		Virtual (ET)	May 29-31
Miami	Coral Gables, FL	Hybrid	Jun 3–15
Rocky Mountain Summer	Denver, CO	Hybrid	Jun 17–22
San Antonio	San Antonio, TX	Hybrid	Jun 24-29
SANSFIRE	Washington, DC	Hybrid	Jul 15-20
New York City Summer	New York City, NY	Hybrid	Jul 29-Aug 3
Nashville	Nashville, TN	Hybrid	Aug 5–10
Chicago	Chicago, IL	Hybrid	Aug 12-17
Virginia Beach	Virginia Beach, VA	Hybrid	Aug 19–30
Network Security	Las Vegas, NV	Hybrid	Sep 4-9
Offensive Operations – Baltimore	Baltimore, MD	Hybrid	Sep 16–21
Managing Security Risk – Live	Online	Virtual (ET)	Sep 23–28
Columbus	Columbus, OH	Hybrid	Sep 23–28
Stay Sharp: September		Virtual (CT)	Sep 30–Oct 2
Big Easy – New Orleans	New Orleans, LA	Hybrid	Sep 30-Oct 5
Dallas Fall	Dallas, TX	Hybrid	Oct 14-19
Rocky Mountain Fall	Denver, CO	Hybrid	Oct 21-26