SYLLABUS · JANUARY 2027

SMPTE ST 2110
Intensive Boot Camp

January Bootcamp · **APAC–EMEA Cohort**

Live sessions run Tuesdays and Thursdays, 09:00–10:00 Europe/Brussels.

This cohort is scheduled for **Asia, Africa, the Gulf, Europe and Oceania**. The same hour is **03:00 in New York** and **00:00 in Los Angeles**. Participants in the Americas should take the year-round cohort instead, which runs on North American hours. Every session is recorded and available on demand within 24 hours.

18 weeks
Programme access
7 Jan – 13 May 2027

13 weeks
Live coaching
26 Jan – 27 Apr 2027

23 sessions
Live, instructor-led
Tuesdays and Thursdays

20 modules
Across three
constituent courses

Certificate
SMPTE Certificate
of Achievement

KEY DATES

Thursday 7 January	Course access opens; live welcome session. Self-paced material becomes available.
Tuesday 26 January	Programme kick-off; live coaching begins.
Tuesday 27 April	Final live session: Q&A and exam preparation.
28 April – 12 May	Examination window. Two attempts permitted within the window.
Thursday 13 May	Course access closes. Module videos are available until this date.

SESSION TIMES BY REGION

CITY	26 JAN – 25 MAR	30 MAR – 1 APR	13 – 27 APR
London	08:00	08:00	08:00
Brussels / Geneva / Berlin	**09:00**	**09:00**	**09:00**
Lagos / Algiers / Casablanca	09:00	08:00	08:00
Cairo / Johannesburg	10:00	09:00	09:00
Nairobi	11:00	10:00	10:00
Dubai	12:00	11:00	11:00
India	13:30	12:30	12:30
Singapore / China / Hong Kong / Taipei / Perth	16:00	15:00	15:00
Tokyo / Seoul	17:00	16:00	16:00
Brisbane	18:00	17:00	17:00
Adelaide	18:30	17:30	16:30
Sydney / Melbourne	19:00	18:00	17:00
Auckland	21:00	20:00	19:00

Europe and the United Kingdom move to summer time on **28 March**, so London and Brussels keep their printed start while every other region shifts an hour earlier. Australian and New Zealand summer time ends on **4 April**, moving Sydney, Adelaide and Auckland an hour earlier again. Morocco observes UTC+0 during Ramadan (approximately 8 February to 9 March 2027), when the Casablanca start is 08:00. Calendar invitations are issued in Europe/Brussels and adjust automatically.

Course One — Introduction to IP Networks

28 JAN – 4 MAR · 9 MODULES

The networking foundation on which ST 2110 depends: how packets are carried, switched and routed, how multicast works, and how to read what is actually on the wire.

0	**28 Jan**	History and Evolution of IP
1	**2 Feb**	Concepts
2	**4 Feb**	The Physical Layer
3	**16 Feb**	The Data Link Layer
4	**18 Feb**	The Network Layer
5	**23 Feb**	Multicast Technology
6	**25 Feb**	The Transport Layer
7	**2 Mar**	The Application Layer
8	**4 Mar**	Introduction to Wireshark

Course Two — Understanding ST 2110

9 – 25 MAR · 6 MODULES

The standards suite itself, from essence streams and timing to the NMOS specifications that make a multi-vendor plant discoverable and controllable.

1	**9 Mar**	Introduction to IP Media Transport and the Industry Shift
2	**11 Mar**	SMPTE ST 2110 Architecture Overview
3	**16 Mar**	Timing, Synchronization and Determinism
4	**18 Mar**	Introduction to AMWA NMOS Specifications
5	**23 Mar**	Deep Dive into NMOS IS-04 and IS-05
6	**25 Mar**	Standards-Based Interoperability and Future Outlook

Course Three — IP Network Design

30 MAR – 20 APR · 5 MODULES

Designing and operating the real thing: topology, multicast at scale, timing distribution, redundancy that survives a failure, and the control layer above it.

1	**30 Mar**	Design Principles for High-Performance Media Networks
2	**1 Apr**	IP Multicast Design and PIM Optimization
3	**13 Apr**	Timing and Synchronization
4	**15 Apr**	Redundancy, Failover and Hitless Operation
5	**20 Apr**	Control and Orchestration Layer Integration

Programme sessions

KICK-OFF AND WRAP-UP

26 Jan	Programme kick-off; orientation and how the cohort will run
22 Apr	Catch-up and case-study session with industry professionals
27 Apr	Final Q&A and examination preparation

Scheduled breaks. No live coaching on **9 and 11 February** for Lunar New Year, or on **6 and 8 April** during the NAB Show. Self-paced material remains open throughout, and these weeks are a deliberate opportunity to catch up.

WEEKLY FORMAT

One or two modules are released each week. Each module carries a narrated video, a hands-on assignment and a quiz, all intended to be completed **before** the related live session, which is then spent on depth rather than delivery. Expect **two to three hours** of self-paced study per week, varying by module.

- Live sessions are for deep dives, instructor guidance, open Q&A and peer exchange.
- Every session is recorded and published on demand within 24 hours.
- Quizzes may be retaken. Module videos stay available for the duration of the programme.
- Closed captions are provided in English, Spanish, French, German, Japanese and Portuguese.
- A discussion forum runs alongside the cohort and is monitored by the instructor team.

ASSESSMENT AND CERTIFICATION

Completion requires **70% or better overall** across module assignments and quizzes, together with **70% or better** on the final examination. The examination is **100 multiple-choice questions** over **two hours**, with **two attempts** available inside the window of 28 April to 12 May. Participants who meet both thresholds receive the **SMPTE Certificate of Achievement**.

PREREQUISITES

None formally required. The programme is built for working professionals and begins at IP fundamentals, so prior networking study is helpful but not assumed. Familiarity with broadcast workflows will make the later material land faster.

PRACTICAL LAB — OPTIONAL PAID ADD-ON

A hands-on sandbox in which to design, synchronise and troubleshoot live-production workflows across a simulated ST 2110 network. Custom-engineered by SMPTE and made possible by in-kind contributions from **Lawo Academy, Arista, Blackmagic Design, Meinberg, Bridge Technologies, Matrox, AJA, intoPIX** and others. The Lab is available as a paid add-on to this boot camp and to the standalone Understanding ST 2110 course. Details at **smpte.org/st2110-practical-lab**.

INSTRUCTORS

Willem Vermost	Lead Instructor, Introduction to IP Networks and Understanding ST 2110. Senior Media Technology Architect, European Broadcasting Union.
Wim Van Roy	Understanding ST 2110. Educational Architect at Lawo; 2025 SMPTE Director of Education.
Gerard Phillips	IP Network Design. Systems Engineer, Arista Networks.
Chris Lapp	IP Network Design. Senior Specialist Solutions Engineer, Cisco Systems. Supports forum discussions.
Leigh Whitcomb	Understanding ST 2110. Long-standing SMPTE standards contributor. Supports forum discussions.

REGISTRATION

Register through the SMPTE portal under product code **2027-01-01-BC**. Student and hardship discounts are available. For questions about the programme, contact SMPTE Education at **education@smpte.org**.