

UV Measurement and Application Course Schedule

Session 1: Monday, September 14, 2020 – 1:00 PM to 3:30 PM ET

| <i>Time</i> | <i>Topics</i> | <i>Presenter</i> |
|-------------|--|-------------------------------|
| 1:00 PM | Welcome and introductions Review of class schedule and objectives | Dan Frering |
| 1:10 PM | Introduction to UV radiation <ul style="list-style-type: none">UV classification, wavelength ranges Basics of radiometry, units Absorption & reflection of different materials Overview of applications (context) | Andrew Bierman |
| 2:00 PM | Overview of electric sources of UV <ul style="list-style-type: none">Excimer, xenon, and mercury lamps, LEDsLife, efficacy, spectrum, size, optical properties | Jean Paul Freyssinier |
| 2:30 PM | Overview of safety and personal protective equipment (PPE) <ul style="list-style-type: none">Examples of PPE Overview of short and long term effects of exposure to UV <ul style="list-style-type: none">Erythema, corneal damage, skin cancer | Indika Perera, Andrew Bierman |
| 3:00 PM | Questions for session 1 | All Course Instructors |
| 3:30 PM | Adjourn | |

Session 2: Wednesday, September 16, 2020 – 1:00 PM to 3:30 PM ET

| <i>Time</i> | <i>Topics</i> | <i>Presenter</i> |
|-------------|--|---|
| 1:00 PM | Overview of instrumentation to measure UV <ul style="list-style-type: none">Irradiance meters, broadband sensors vs. spectroradiometersAlGa_N, SiC sensors What to look for when choosing a UV meter <ul style="list-style-type: none">Application, sensor, sensitivity, range, calibration | Andrew Bierman Jean Paul Freyssinier |
| 2:00 PM | Best practices for safe and accurate measurements <ul style="list-style-type: none">Concept of fluenceLaboratory vs. field measurementsSurface, air, and water measurements | Andrew Bierman Jean Paul Freyssinier |
| 2:30 PM | Overview of applications of UV radiation <ul style="list-style-type: none">Germicidal, curing (dental, industrial), vitamin DUpper room, HVAC ducts Case studies: TB, water treatment, plant health | Andrew Bierman |
| 3:00 PM | Questions for session 2 | All Course Instructors |
| 3:30 PM | Adjourn | |