##### Course: Chromatography and mass spectrometry applications in Toxicology

##### FBC5885

**2020**

Start date: March-02-2020 End date: April-08-2020

Time: 1.0 pm to 6.0 pm (Monday and Wednesday)

Friday: 1.0 pm to 6.0 pm (period for studies)

Teaching Professors:

Ernani Pinto Junior

Fabiane Dörr

Maurício Yonamine

**PROGRAM**

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Subject** | **Professor** | **Strategy** |
| Mar-02 (Mon) | Course introduction, details, evaluation, discussion about seminars Initial test for evaluating students’ previous knowledge | Prof. Ernani | Theoretical class |
| Mar-04 (Wed) | Fundamentals of Chromatography | Prof. Ernani | Theoretical class |
| Mar-09 (Mon) | Fundamentals of Mass Spectrometry | Prof. Ernani | Theoretical class |
| Mar-11 (Wed) | Biological samples used in ToxicologySample preparation techniques | Prof. Mauricio | Theoretical class |
| May-04 (Mon) | Environmental samples used in ToxicologyValidation of analytical methods | Prof. Fabiane/ Prof. Mauricio | Recorded theoretical class available on edisciplinas.usp.br |
| May-06 (Wed) | Activities in classroom - validation of methods (computer room) | Prof. Ernani  | Practical class – Google Meet platform |
| May 11 (Mon) | Determination of etanol in oral fluid samples by headspace and GC-FID | Prof. Mauricio | Practical class (videos and exercises available on edisciplinas.usp.br)  |
| May-13 (Wed) | Confirmation of amphetamine related compounds in hair samples by GC-MS/ | Prof. Mauricio | Practical class (videos and exercises available on edisciplinas.usp.br) |
| May-18 (Mon) | Detection of MIB and GEO by SPME and GC-MS | Profa. Fabiane | Practical class (videos and exercises available on edisciplinas.usp.br) |
| May-20 (Wed) | Determination of microcystins in water by SPE and LC-MS | Profa. Fabiane | Practical class (videos and exercises available on edisciplinas.usp.br) |
| May-25 (Mon) | Seminars | Students | Students will prepare 15 min-presentations using available tools (e.g. recording narration in powerpoint presentation) |
| May-27 (Wed) | **Final exam** |  | Cancelled |