

Week	Gemmology Basics Lab- 36 hours
1	How to use tweezers and loupes. Handling stones in and out of boxes. Folding briefkes. Introduce the instruments covered in this course (will be helpful to see them before the theory classes).
2	Crystallography lab class
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4	Hardness, cleavage and fracture kits. SG kit.
5	Introduction to polariscope and dichroscope.
6	How to use the refractometer. Introduce spectroscope and colour filters
7	Observe and identify examples of sheens, lustres and other optical effects ex colour shift.
8	Have students do lab combining polariscope, dichroscope and refractometer. Relate these three instruments back to SR and DR crystal systems. Students should be practicing using loupe before testing with the other instruments. Introduce UV light.
9	Microscope. Learn how to use the microscope. Examples of natural stones only.
10	ID gems using polariscope, dichroscope, CCF refractometer and microscope. Use natural, untreated stones only.
11	Use composite stones to introduce immersion (water, oils). More practice with microscope to observe COMMON treatments and composite stone.
12	Observe cut and uncut examples of synthetics with microscope and CCF. This is observation only. Diploma year lab will require identification of synthetic methods.