CIVE 5050 Concrete Materials (3-0-3)

Laboratory Guidance

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September 1, 2017

Before Experiment

- If you do not know what to do, do not walk into the laboratory. ⇒ *Experimental work always includes at least three major parts: i) people (who), ii) materials/equipment (what), and iii) procedure/standards (how).*
- If you do not have the **list of materials and equipment** (e.g., what material/tools/equipment to use, how much material to use), do not touch anything in the laboratory.
- If you do not have everything (e.g., materials, supplies, tools, molds) ready, do not start your experiment.
- If you do not know the **objective** of your experiment, do not start your experiment. ⇒ *Know what to observe, what to measure/collect, and what to report.*
- If you do not have the list of **task assignment** for everyone on the team, do not start your experiment. ⇒ *Know who is going to do what. Be responsible for what you are assigned for in the experiment.*
- If you do not know what kind of **precautions** and **safety measures** you need in your experiment and are not equipped with proper protection (e.g., respirators, gloves/mittens, safety googles/glasses), do not start your experiment. ⇒ *Know how to protect yourself, others, and laboratory equipment.*

During Experiment

- If you do not know what to **document** (e.g., physical or chemical quantities, photos, videos), stop your experiment right away. ⇒ *Documentation is the key element in all scientific efforts.*

- If you encounter some problem with equipment and do not know how to correctly troubleshoot it, stop your experiment and call the laboratory staff. ⇒ *Be aware of what should happen in your experiment and what should not. Do not pretend to know how to fix something that you actually are not familiar with.*
- If you break something that you are not supposed to,
  1. report to the laboratory staff immediately,
  2. fix it if you can (or you have to pay for the replacement), and
  3. stop your experiment if there is safety concern.

After Experiment

- If you open something, close it after using it.
- If you turn on something (e.g., lights, machines), turn it off after using it.
- If you take the tools from the shelf, clean and restock them after you are done.
- If you cast concrete specimens on the floor/table,
  - clean the equipment after you finish, and
  - dispose of your wastes properly.

Laboratory staff

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