Daily Agenda
Biotechnology Lab Research Training
Fridays 10am – 1pm, Break: 11:00-11:15am
February 3 – March 31, 2023
PBSC Eissey Campus, Bioscience Building SC-214, 3160 PGA Blvd, Palm Beach Gardens
Instructor: Edison Mejia – Biotech Lab Specialist

Important Notes (please read, understand, and follow):

- You will take an assessment on the first and last day of the program.
- You will do lab math practice every day.
- Dress code: wear long pants, (short sleeve shirts are ok), close-toed shoe. Tie long hair back, use gracious professionalism and attention to safety while working in the laboratory. No shorts, mini-skirts, flip flops, sandals allowed. You will be asked to leave if you cannot follow the daily dress code expectations.
- No eating, drinking, smoking, applying make-up, or cell phone use in the laboratory.
- We will provide you with goggles, gloves, and lab coats.
- Keep distracting conversations to a minimum. This is a learning experience for all.
- Have fun, learn a lot! Some of your experiments will work, some will fail. Welcome to Science! Don’t be discouraged. We are here to support you!

1. Friday, February 3rd room SC-214
   - 10:00-10:10am Welcome: Mr. Brandon White
   - 10:10-10:30am Participant introductions.
   - 10:30-10:50am Assessment.
   - 10:50-11:00am Laboratory Safety (PPE, MSDS, Eye wash, Safety showers, chemical and biohazard waste disposal, Chemical hoods, Laminar Flow Hood (Biosafety cabinet), chemical spill kit, extinguishers, etc.)
   - Break 11:00-11:15am
   - 11:15-12:00pm Micropipettes: Pipetting Practice
   - 12:00-1:00pm Lab Math: Dilution, Molarity, Mass/Volume, %Mass/Volume
2. Friday, February 10th room SC-214  
- 10:00-10:30am Lab Math exercises  
- 10:30-10:50am Presentation: Plasmids  
- 10:50-11:10am Presentation: Plasmid DNA Transformation  
- Break 11:00-11:15am  
- 11:20-1pm Plasmid DNA Transformation

3. Friday, February 17th room SC-214  
- 10:00-10:30am Lab Math exercises  
- 10:30-11:00am Plasmid DNA Transformation Analysis  
- 11:00-11:15 Break  
- 11:15 – 1:00pm Grow E. coli overnight in preparation for Plasmid DNA purification.

4. Friday, February 24th room SC-214  
- 10:00-10:30am Lab Math exercises  
- 10:30-10:50am Presentation: NanoDrop Results Analysis  
- 10:00-11:00am Plasmid DNA purification – Miniprep  
- 11:00-11:15 Break  
- 11:15 – 12:00pm Plasmid DNA purification – Miniprep continues.  
- 12:00-1:00pm DNA Concentration using NanoDrop (concentration and purity).

5. Friday, March 17th room SC-214  
- 10:00-10:30am Lab Math exercises  
- 10:30-10:50am Presentation: Agarose Gels – DNA electrophoresis  
- 11:00-11:15 Break*  
- 10:50-1:00pm DNA electrophoresis: Buffers solutions, Calculations, Agarose Gel preparation, Sample preparation, sample running.

6. Friday, March 24th room SC-214  
- 10:00-10:20am Presentation: Polymerase Chain Reaction - PCR  
- 10:20-11:00am Polymerase Chain Reaction – PCR  
- 11:00-11:15 Break  
- 11:15-1:00pm DNA electrophoresis: Buffers solutions, Gel preparation,

7. Friday, March 31st room SC-214  
- 10:00-11:00am PCR – Gel Electrophoresis  
- 11:00-11:15 Break  
- 11:15-1:00pm Final Presentations Results: 15 minutes.