**State ENR Layout and Schedule**

Schedule/Rotation

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Team Member | Rotation 1 9:00-9:45 | Rotation 2 9:55-10:40 | Rotation 3 10:50-11:35 | Lunch 11:35-12:05 | Rotation 4 12:15-1:00 | Rotation 5 1:10-1:55 |
| A | GPS | H2O Qual | ID | Stay at Station 3 Lunch will be Delivered | Waste | Soil |
| B | Soil | GPS | H2O Qual | ID | Waste |
| C | Waste | Soil | GPS | H2O Qual | ID |
| D | ID | Waste | Soil | GPS | H2O Qual |
| E | H2O Qual | ID | Waste | Soil | GPS |

|  |  |
| --- | --- |
| Rotation 6 2:00-2:30 | Rotation 7 2:30-3:00 |
| Group A Teams - Individual Test - Wilkens | Group A Teams - Team Activity - Wilkens |
| Group B Teams - Individual Test - Clements | Group B Teams - Team Activity - Clements |

Location

|  |  |  |
| --- | --- | --- |
| **Practicum** | **Building**  | **Tables/Chairs** |
| Orientation/Test | Wilkens | 15 tables, 120 chairs |
| GPS | Rodeo Arena | 1 table, 3 chairs |
| H2O Qual | Wadell Entertainment | 5 tables, 10 chairs |
| ID | Boswell | 10 tables |
| Waste/Team | Clements | 10 tables, 60 chairs |
| Soil | Horse Arena | 1 table, 3 chairs |
| Lunch | At Station 3 |  |

**Team Activity - Data Analysis - 200pts**

* Teams will have 30 minutes to analyze environmental data (stream flow, air quality, etc) and answer questions related to the data.

**Written Test - 100pts**

* Contestants will take a 50 question written test using the 2022, 2021 & 2019 National Tests. They will have 30 minutes to complete the test.

**Identification - 100pts**

* Students will identify 50 samples/specimens from the National FFA ENR List. Samples may include pictures, mounts, pelts, skulls or footprint casts.
* The numbered National list will be provided. Students will need to record the number code on their answer sheet.

**GPS Practicum - 100pts**

* Under “Setup” make sure your Garmin is set to the following:
* Satellite System = GPS
* WAAS/EGNOS = On
* Students will be expected to read coordinates in **UTM UPS** and **Latitude/Longitude**.
* Students will need to be familiar with utilizing and switching to different **Map Datums**
* Students will need to demonstrate the following skills:
* Reading and recording coordinates
* Marking “Waypoints”
* Inputting coordinates and navigating to unknown location
* Alternating between UTM UPS and Latitude/Longitude.
* Measuring and reading distance
* Calculating surface area and acreage

**Soil & Land Evaluation - 100pts**

* Contestants will complete the Land Evaluation scorecard utilizing the given soil pit, staked area, topsoil and subsoil samples.
* The scorecard will be BLANK. In years past we have used the “cheat sheet” as the scorecard.
* A clinometer will be provided for slope.
* The topsoil/subsoil transition will be indicated **only** if necessary.

**Waste Management - 100pts**

* A series of scenarios and assessments will be proctored regarding the handling of solid waste, agricultural waste, forestry waste, municipal waste and industrial waste.

**Water Quality Practicum - 100pts**

* Students will be conducting 4 Water Quality Tests using the HACH Kits.
* Partial Credit will be given to answers out of the tested range.
* The scoring will be as follows 15-10-5-0 for Phosphorus and pH.
* The scoring will be as follows 10-7-4-0 for Temperature and Dissolved Oxygen.
* Example: If the pH is 6.8 the following scores would apply:

15pts = 6.7 to 6.9

10pts = 6.5-6.6 or 7.0-7.1

5pts = 6.3-6.4 or 7.2-7.3

* Temperature (10pts) - be prepared for Celsius and Fahrenheit
* Phosphorus (15pts) - Kit #224800 (0-40 mg/L)
* pH - (15pts) - Kit #147006 (5.6-8.4)
* Dissolved Oxygen (10pts) - Kit #146900 (1-20 mg/L)
* Since Dissolved Oxygen takes a considerable amount of time to prepare the sample, DO samples will be “fixed” and students will be required to titrate the sample and interpret the results.
* A short Water Quality Assessment (50pts) will also be proctored. Test questions will NOT be related or connected to the samples tested.