

**Sterling Park Amateur Radio Club (SPARC)**  
**Technician License Preparation Class – 22-23 February 2020**

1. The Sterling Park Amateur Radio Club (SPARC) will conduct a Technician License Preparation Class.
2. **Date/Time:** Saturday and Sunday, 22-23 February 2020  
**Class:** Saturday, 22 February 2020, 0800 – 1700 hrs.  
Sunday, 23 February 2020, 0800 – 1200 hrs.  
**Exam Session:** Sunday, 23 February 2020: 1300 hrs. (for class members) and 1400 hrs. (for exam-only candidates)  
*Please see separate instructions for the licensing examination.*
3. **Venue:** Office of the Sheriff, Eastern Loudoun Station, 46620 East Frederick Drive, Sterling, VA 20164
4. **Attendees:** All interested persons are invited to participate in the Technician License Preparation Class. Classroom space is limited, so prior registration is required.
5. **Fees:** There is no fee for participation in the Technician License Preparation Class.
6. **Coordinator:** The Technician License Preparation Class Coordinator is Amitabha “Amit” Mukherjee, WY2Z, [amit5201@gmail.com](mailto:amit5201@gmail.com).
7. **Pre-class study:**  
Students are advised to read a Technician License Class study guide: the recommended material can be accessed for free on the internet at:  
<https://www.kb6nu.com/wp-content/uploads/2018/11/2018-no-nonsense-tech-study-guide-v1-1.pdf>  
Alternatively, another free manual is at:  
<http://www.ad7fo.com/media/TechLic2018.pdf>  
Other self-study guides are available from:  
ARRL at <http://www.arrl.org/shop/ARRL-Ham-Radio-License-Manual-4th-Edition-Softcover>  
W5YI Group at [https://www.w5yi.org/catalog\\_details.php?pid=79&sort=4](https://www.w5yi.org/catalog_details.php?pid=79&sort=4)  
Students are not required to bring the study guide to the class.  
  
Online Practice Exams are available and may be used by students. Several sites are available, such as:  
<http://copaseticflows.appspot.com/hamtest>  
<https://www.qrz.com/hamtest/>  
<https://hamexam.org/exam/12-Technician>  
[https://hamexam.org/flash\\_cards/12-Technician](https://hamexam.org/flash_cards/12-Technician)  
<http://www.eham.net/exams/>
8. **Radio demonstration** will be conducted by Kevin, W4KLS
9. **Refreshments** (Coordinators: Gordon NQ4K and Amit WY2Z):
  - a. Donuts and coffee prior to beginning of class each day  
Donuts - 2 dozen / 17 people for each day.  
Coffee – 1 30-cup pot of regular coffee per day.
  - b. Soft drinks: 1 case water, 2 cases (24 each) soda placed in cooler with ice.
  - c. Disposables: Roll of paper towels, disposable cups, trash bags.
10. **Lunch:** Participants should provide for their own daily lunch: they may bring a bag lunch or go out for lunch.

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**11. Instructor-Guided Class:**

Twelve (12) hours of class cover all sub-elements of the Technician Class licensing examination. The class material/ presentation is the current version of the K3DIO instructor presentation.

| Element & Description   | Sub-Elements | Briefing Pages | Start Time | Duration | Instructor   |
|---|--------------|----------------|------------|----------|--------------|
| <b>Saturday</b>   |              |                |            |          |              |
| T1 – FCC Rules, descriptions and definitions for the Amateur Radio Service, operator & station license responsibilities           | 6            | 118            | 0800       | 1:30     | Paul, K4PDF  |
| T2 - Operating Procedures   | 3            | 63             | 0930       | 1:00     | Earl, KB0NRK |
| T8 – Modulation modes: amateur satellite operation; operating activities; non-voice communications                                | 4            | 80             | 1030       | 1:00     | Earl, KB0NRK |
| T5 – Electrical principles: math for electronics; electronic principles; Ohm's Law  | 4            | 96             | 1130       | 1:00     | Henry, K2BFY |
| <b>Lunch</b>  |              |                | 1230       | 1:00     |              |
| T7 – Station equipment: common transmitter and receiver problems; antenna measurements; troubleshooting; basic repair and testing | 4            | 81             | 1330       | 1:00     | Kevin, W4KLS |
| T0 – Electrical safety: AC and DC power circuits; antenna installation; RF hazards  | 3            | 60             | 1430       | 1:00     | Kevin, W4KLS |
| T3 – Radio wave characteristics: properties of radio waves; propagation modes   | 3            | 60             | 1530       | 1:00     | Bill, K4UPE  |
| T4 - Amateur radio practices and station set-up   | 2            | 41             | 1630       | 0:30     | Bill, K4UPE  |
| <b>End of Saturday Class</b>  |              |                | 1700       |          |              |
|   |              |                |            |          |              |
| <b>Sunday</b>   |              |                |            |          |              |
| T6 – Electrical components: semiconductors; circuit diagrams; component functions   | 4            | 75             | 0800       | 1:00     | Tod, KN4BGX  |
| T9 – Antennas and feed lines  | 2            | 42             | 0900       | 1:30     | Larry, W8ANT |
| Practice Exams  |              |                | 1030       | 1:30     |              |
| <b>End of Sunday Class</b>  |              |                | 1200       |          |              |
| <b>Lunch</b>  |              |                | 1200       | 1:00     |              |
|   |              |                |            |          |              |
| <b>Examination</b>  |              |                | 1300       |          |              |