

Burke-Gaffney Observatory Saturday Tour Guidelines

Updated on October 7, 2009 by Dave Lane

General:

- The purpose of these tours is to inform, enthuse, and educate the public about science and astronomy in particular and to promote Saint Mary's University and our programs in the community.
- Each tour will have two "tour directors" – a tour guide and a telescope operator (hired by the department). The telescope operator is responsible for dealing with the technical aspects of the running the observatory and telescope and they decide if the tour goes ahead given the weather.
- You will find the observatory keys on the lock box attached to the door of Room MM313B. The combination is buttons 1-9-7-6 (NGC number of M42). You have to press these buttons to open the box and re-attach the box. **Be sure to return the keys at the end of the night.** The telescope operator has his/her own set of keys.
- We communicate our tour information with the public using our info line, which is 496-8257. The telescope operator is responsible for maintaining the messages there.
- If you need help, advice, etc. prior to the tour, do not hesitate to talk to Dave Lane or Gary Welch. You may find it useful to visit the observatory during the day on Friday to re-familiarize yourself – Dave Lane or Gary Welch can help you if you need a re-orientation.

When:

- Tours are scheduled every Saturday between June and September and on the 1st and 3rd Saturday of each month for the rest of the year.
- Tours begin at 7pm between November 1 and March 30 and at either 9pm or 10pm (depending on when it gets dark) between April 1 and October 31.
- Tours are only held if the skies are clear (or mostly clear). The telescope operator makes that decision in the late afternoon or early evening and updates the info line phone message (before 7pm from April 1 to October 31 and before 5pm from November 1 to March 31) (see separate wallet-sized sheet for how to do this).
- **DO NOT BE PESSIMISTIC ABOUT THE WEATHER!** The weather can change very quickly. Its better to err on the side of saying it's a "go," and have it cloud over, than to cancel and have it clear before the tour. If you can't "call it" by 5 or 6pm, then update the message saying you will make the decision at a specified time later in the evening.
- On nights when the Moon or planets are up in the evening, you can generally accept less than ideal conditions, otherwise, very clear skies are needed to see much (due to the light pollution). A deep blue sky during the daytime is a good indicator of a great night ahead even if there are lots of fluffy cumulous clouds (which usually dissipate) in the sky. If the sky is light blue or hazy, this is a sign that the sky has either a lot of moisture in it or high thin cirrus clouds that generally don't go away at night and become illuminated at night by the city lights. A trick I use is to look at the sky during the day with the amber-coloured "driving" sunglasses – these seem to enhance the visibility of high thin clouds and moisture in the sky.

Where:

- Plan to arrive at the observatory about 30 minutes early to set up the telescope, open the dome, and allow the observatory to cool down (to improve “seeing”) and to make sure everything is working properly. If something is amiss, you can often reach Dave Lane on his cell at 499-6196. The telescope operator will do this part and tour guide usually meets the group in the lobby.
- On your way upstairs, you will have to give your name to be allowed access to the Loyola elevators. They have a current list of all tour guides. Also let the residence desk staff know about the tour so they can inform the public that you’ll be down to meet the group a few minutes prior to the tour time. Make sure they know not to let the public into the residence un-escorted (they are supposed to know this, but ...).
- Meet the tour in the residence lobby (near the Goresbrook Ave entrance) of the Loyola building about 5 minutes prior to the tour. It is not a bad idea to make sure no one is waiting in the “other” Loyola lobby near the banking machine.
- Wait for “stragglers” for a few minutes after the official start time before bringing the group up to the observatory.
- Inform the residence desk staff to direct any latecomers up to the 22nd floor – remind them to call the Observatory (420-5896) to let you know they are on-their-way. Be sure to remember to leave the observatory door open! If they don’t arrive within 10-15 minutes, call the residence desk to let them know (residence security has asked us to do this, because they don’t want “non-residents” wandering around the building).

What:

- Prior to the tour, the telescope operator will prepare a list of 5-10 suitable objects visible that night — learn some facts about these objects ahead of time. Ask him/her ahead of time what objects are likely to be looked at. Feel free to come up with your own objects too. If you need assistance selecting suitable objects, see Dave Lane or Dave Turner.
- Explain what you are showing. This explanation can go far beyond the object itself. For example, don’t just say that the Ring Nebula is a planetary nebula. Say what a planetary nebula is and then talk about stellar evolution, death of stars, etc. Binary stars and star clusters can lead to a discussion about star formation, etc.
- Encourage questions
- Engage the discussion
- Most tour attendees will have had their fill (or will have “frozen out”) after an hour or so, however a few “keeners” will usually remain and that makes it all worthwhile.
- Before long, the usual 1 to 2 hours of the tour will be over and you will leave enthused and ready for your next tour!
- Before leaving, be sure to make an entry in the observatory log book including the approximate attendance, and if you encountered any technical problems report these to Dave Lane by e-mail or voice mail (420-5640) immediately.

Useful numbers:

Dave Lane’s Cell: 499-6196

Dave Lane’s Office: 420-5640

Dave Lane’s E-mail: dlane@ap.stmarys.ca

Dave Turner’s home number: 435-2733