

4th Annual Merit Badge University

Participant and Leader Guide

23 March 2019



Hosted by

University of Texas Rio Grande Valley
Edinburg, Texas

Sponsored by

Boy Scouts of America - Rio Grande Council
UTRGV Engineering & Computer Science Student Advisory Council

Table of Contents

Page 3	Greetings from MBU Committee Chair
Page 4	UTRGV Campus map
Page 5	Registration and Policy
Page 6	Replacement Scout Policy
Page 6	Refund Policy
Page 6	MBU Cancellation
Page 6	Merit Badge Results
Page 7	MBU Schedule
Page 8	Troop Adult Contact (TAC) Requirements
Page 9	Scout Responsibilities
Page 10	Course Offerings
Page 11	Course Prerequisites

Greetings from MBU Committee Chair

Welcome to Merit Badge University sponsored by the Rio Grande Council of the Boys Scouts of America and the University of Texas Rio Grande Valley Engineering & Computer Science Student Advisory Council. Scouts can attend up to 2 merit badge sessions from a list of approximately 30 merit badges courses. This event could not be accomplished without a dedicated team.

I would like to thank and acknowledge the members of the Merit Badge University organizing committee: Sharon Cavazos, Alyssa Carrizales, Daniel Flores, Robert MacEachern, Isabel Stroop, Gerardo Rodriguez, Paula Rios, and Miguel Chaires. A big thank you to our BSA Rio Grande Council Staff for their continued support and participation: Ernest Espinoza and Council Executive, Rudy Gonzales.

Additionally, I would like to thank all our volunteers who offered their time to serve as merit badge counselors, leadership, and assistants during the event.

Thank you for your participation in the 4th Annual Merit Badge University!

With appreciation,

Rachel Martinez
MBU Chair
rachelmtz_scouting@yahoo.com

Merit Badge University

Saturday, 23 March 2019

1201 W. University Drive

Edinburg, TX. 78539

Engineering Building

UTRGV Campus Map



Registration and Policy

Early Registration open: Feb 1 - 28

Early Registration closed: Feb 28 @ at 12 midnight

Late Registration begins: March 1 - 18

Late Registration ends: March 18 @ 12 midnight

There is no late registration fee; however, the fee is \$30 and t-shirts will NOT be available.

- BEFORE registering, the scout should speak with their Scoutmaster about attending MBU and the merit badges courses to take.
- Registration is on a first come basis.
- The scout or parent/guardian must register through the Rio Grande Council website.
- MBU Fee is \$30.00 and includes:
Two 4-hour merit badge courses, merit badge workbooks, course schedule, name tag with lanyard and holder, MBU patch, snacks, and lunch.
- *****NOTE**
 - T-shirt NOT available in late registration
 - Additional meals may be purchased during registration at a cost of \$5.00
 - Patches are guaranteed to the first 300 registrants
- Double-Knot charges a convenience fee that is not associated with MBU.
- Merit Badges that have additional fee for supplies.
Space Exploration is an additional \$10. Electronics is an additional \$10.
- Merit badges not completed at MBU will earn partial credit for the scout.
- Merit Badge Blue Cards will not be used. A print out reflecting *Partial and Completed Merit Badge(s)* will be emailed to the Scoutmaster as approved by Scout Executive or designee.
- Late registration or schedule changes will NOT be done at MBU.
- Merit Badges offered may be canceled or possibly changed due to events beyond MBU control. (Example: Instructor gets sick, dies, or has a family matter requiring their immediate attention.)

Replacement Scout Policy

- A scout who registers for MBU but cannot attend may be replaced with another scout. The replacement scout will be responsible for reimbursing the originally registered scout.
- The replacement scout will be limited to taking the same merit badges for which the original scout was registered.
- Any replacement scouts known prior to MBU event date will email drcav@swbell.net, the scoutmaster, and Troop Adult Contact for efficiency purposes.
- Upon checking in, the Troop Adult Contact (TAC) will notify the MBU staff of replacements
- T-shirt size ordered for original participant cannot be changed.

Refund Policy

The Rio Grande Council Scout Executive reserves the authority grant refunds and will consider each request on a case by case basis.

MBU Cancellation

MBU will be cancelled in the event of severe weather and emails will be sent.
(Examples of severe weather are the following forecasts on the day of MBU, in the area: Tornados; 1 inch or more of rain per hour/severe flooding; and high winds and hail.)

Merit Badge Results

Merit badge completions and partials will be documented and submitted to each participating troop scoutmaster via email within two weeks of MBU. Questions or concerns are to be sent to Dr. Sharon Cavazos at drcav@swbell.net or 956/793-2815.

MBU Schedule

7:00 am	<ul style="list-style-type: none">*Check in at the Engineering Building (see map on page 4)*Troop Adult Contact should check in and pick up troop packet*Troop Adult Contact (TAC) will collect patches for attending scouts. TAC will collect shirts for scouts that placed orders during early registration.
8:00 am	Opening ceremony in the Engineering Building for all participants and adults
8:25 am	Scouts report to first class
8:30 am	<ul style="list-style-type: none">*Morning session begins*Merit badge workbooks will be provided to each scout*A managed break with snack and water for scouts will be provided
12:30 pm	Morning session ends and lunch begins
1:30 pm	<ul style="list-style-type: none">*Lunch ends and Afternoon Session Begins (Merit Badge worksheet booklet will be provided to each scout)*A managed break will be given with snack and water available to scouts during the afternoon session
5:30 pm	<ul style="list-style-type: none">*Afternoon Session Ends. Merit Badge University closed.*All scouts report to the Troop Adult Contact (TAC) at location TBD

Troop Adult Contact (TAC) Requirements

Troop Adult Contacts (TAC) are the conduit between the MBU staff and scouts.

At least one TAC per troop must be present throughout the entire event. The TAC may be scoutmasters, assistant scoutmasters, committee members, or adult volunteers that the scoutmaster trusts to respond to problems or issues that may arise with troop members attending MBU. TACs may not be teaching or assisting in a merit badge class at the same time they are serving as TAC. All scouts are to report to the designated area in the morning and wait for the TAC to provide lanyards with schedules. Scouts will NOT be allowed in check-in area or be able to pick up scout packets.

TAC Responsibilities

- *Signing in for their Troop
- *Provide their **cell phone number (CPN)** to the MBU Staff. The names and times of relief and CPN of any other adults that are taking over the TAC responsibility later that day.
- *There must be at least one TAC per troop throughout the entire event.
- *Supporting and enforcing LEAVE NO TRACE
- *Medical binders not required. If medications are to be administered, you may turn them in to MBU nurse and must be properly labeled for designated scouts
- *Notify MBU Staff of any Scout Replacements and who they are replacing upon check in
- *Ensure their scouts know who the Troop Adult Contact is for MBU to avoid confusion
- *Distribute packets to their Scouts after checking in
- *Maintain a presence at MBU. Assist with issues while troop members are in attendance
- *Monitor attendance and early departure of scouts
- *Sign in and confirm CPN when relieving an outgoing TAC
- *Signing out upon being relieved by an incoming TAC
- *Signing their Troop out at the end of MBU. Securing MBU Patches, T-Shirts and medication
- *Verify that no scout is left behind before departing
- *Make sure that scouts are not running in halls, climbing stairs, riding in elevators, acting irresponsibly as we are guests at UTRGV.

Scout Responsibilities

- *Discuss the Merit Badges they want to work on with their Scoutmasters
- *Register for Merit Badge classes online, with an adult's assistance
- *Notify their Scoutmasters for which Merit Badges they registered
- *Wear Class A uniform
- *Bring evidence of Pre-requisite completion, current Merit Badge Handbooks (recommended), paper, and any other necessary course material to class.
Note that the merit badge workbook will be provided
- *Bring pen or pencil, and be filled with **enthusiasm and good manners!**
- * Notify his TAC if he needs to depart early or has a problem or issue
- * Obey the Scout Oath and Law. Showing trustworthiness by treating the University Campus, Buildings, Classrooms and Equipment with respect. The University Staff has placed their trust and confidence in the Council's Scouts and adults to use its facilities. You can be responsible for helping this turn into a recurring and rewarding partnership.
- *Be courteous to all on campus.
- *Pay attention to the adult volunteers who are instructing and assisting in the classrooms and do not be rude to your fellow Scouts
- *Demonstrate "Leave No Trace Principles". Put trash in the appropriate containers, leave chairs, tables, desks clean and in the proper place. Leaving the bathrooms clean and neat in appearance.
- *Meet with the MBU nurse for taking required medications

Courses

Morning Courses (8:30 am – 12:30pm)
*Citizenship in the Nation
*Citizenship in the World
*Communication
*First Aid
*Sustainability
Art
Chess
Crime Prevention & Fingerprinting (2 Merit Badges)
Game Design
Inventing
Law

Full Day Courses (8:30 am – 12:30pm) (1:30pm -5:30pm)
Programming (Cyber Chip required)
Space Exploration (additional \$10 fee)

Afternoon Courses (1:30pm – 5:30pm)
*Citizenship in the Community
*Cooking (13 years and older)
*Emergency Preparedness (prerequisite is First Aid)
*Family Life
*Personal Management (14 years and older)
American Heritage
Digital Technology
Electronics (additional \$10 fee)
Engineering
Medicine
Photography (Cyber Chip required) (Camera)

*Indicates Eagle Required Merit Badge

*****Classes and schedules are subject to change at anytime***

Course Prerequisites

Recommended Pre-requisites (may vary dependent on course instructor).
These courses may or may not be offered on an Annual basis.

You may find what the requirements are by visiting <http://www.scouting.org/meritbadges.aspx>

American Heritage

Requirement 3(c). Research Family History. Be prepared to discuss in class.

Architecture

Requirement 4. Bring your work to class.

Requirement 5. Bring proof of completion.

Art

Requirement 6. Visit museum, art exhibit, art gallery, artist' co-op, or artist workshop

Astronomy

Requirement 8. Bring proof of completion.

Requirement 9. Be prepared to discuss in class.

Chess

Requirement 4. Bring written section to class.

Requirement 5. Bring written section to class.

Citizenship in the Community – Eagle Required

Complete Requirement 2(b). Bring your chart to class.

Complete Requirement 3(a). Bring a note from an adult as proof.

Complete Requirement 4. Bring your notes to class.

Complete Requirement 5. Be prepared to discuss in class.

Complete Requirement 6. Be prepared to discuss in class.

Complete Requirement 7c. Bring a note from an adult as proof of at least 8 hours of community service.

Complete Requirement 8. Be prepared to present in class.

Citizenship in the Nation – Eagle Required

Complete Requirement 2. Bring a note from an adult as proof.

Complete Requirement 3. Bring your articles or notes to class.

Complete Requirement 6. Be prepared to discuss in class.

Complete Requirement 8. Bring a copy of your letter(s) to class.

Citizenship in the World – Eagle Required

Complete Requirement 3a. Be prepared to discuss in class.

Complete Requirement 4. Be prepared to discuss in class.

Complete Requirement 7. Bring your notes to class.

Coin Collecting

Requirement 7: Collect from circulation a set of current U.S. coins. Include one coin of each denomination (cent, nickel, dime, quarter, half dollar, and dollar). The rest will be done in class.

Complete Requirement 9: Do ONE of the following:

- a. Collect and identify 50 foreign coins from at least 10 different countries.
- b. Collect and identify 20 bank notes from at least five different countries.
- c. Collect and identify 15 different tokens or medals.
- d. For each year since the year of your birth, collect a date set of a single type of coin.

Collections

Scout is to bring a collection of items. These items can be anything from baseball cards, to hot wheels, to insects, etc. Stamp and Coin collections are excluded.

Requirement 1: Prepare a short written report or outline for your counselor, giving a detailed description of your collection, including a short history. Be sure to include why you chose that particular type of collecting and what you enjoy and have learned from your collection.

Communications – Eagle Required

Complete Requirement 2(a). Be prepared to present in class.

Complete Requirement 3. Bring a note from an adult as proof.

Complete Requirement 4. Bring your presentation to class.

Complete Requirement 5. Bring your report to class.

Complete Requirement 6. Bring your plan and materials to class.

Complete Requirement 7. Bring proof to class.

Complete Requirement 8. Bring proof to class.

Cooking – Eagle Required

Requirement 4. Cooking at home – bring note from adult showing completion

Requirement 4(b). Share and discuss your meal plan and shopping list with your counselor.

Requirement 5. Camp cooking – bring note from Scoutmaster or ASM showing completion.

Requirement 5(c). Share and discuss your meal plan and shopping list with your counselor.

Requirement 6. Trail and backpacking meals – bring note from Scoutmaster or ASM showing completion.

Requirement 6(c). Share and discuss your meal plan and shopping list with your counselor.

Requirement 7. Food –related careers. Be prepared to discuss in class.

Crime Prevention

Requirement 4(a). Inspect your neighborhood. Bring findings

Requirement 4(b). Bring checklist of security survey of your home.

Requirement 6. Bring your work to class.

Requirement 7. Bring proof of completion.

Dentistry

Complete Requirement 3. Bring your notes to class.

Complete Requirement 4c. Bring your record to class.

Complete Requirement 6. Bring your work to class.

Digital Technology

Complete Requirement 1. Bring your notes to class

Complete Requirement 4. Bring your notes to class.

Complete Requirement 5. Bring your notes to class.

Complete Requirement 7. Bring your notes to class.

Complete Requirement 9. Bring your notes to class.

Electricity

Complete Requirement 2. Bring home safety inspection list to class.

Complete Requirement 8. Bring diagram to class.

Complete Requirement 9. Bring written notes to class.

Electronics (additional \$10 fee)

Requirement 6. Be prepared to discuss in class.

Emergency Preparedness – Eagle Required

Bring verification that you earned the First Aid Merit Badge.

Complete Requirement 2. Bring your notes to class and be prepared to discuss.

Complete Requirement 6. Be prepared to discuss in class.

Complete Requirement 8. Be prepared to discuss in class. Bring your kit to class.

Complete Requirement 9b. Bring a letter from an adult as proof. Bring your plan.

Engineering

Complete Requirement 1. Bring your written section to class and be prepared to discuss.

Complete Requirement 2. Bring your written section to class and be prepared to discuss.

Complete Requirement 3. Bring your written section to class and be prepared to discuss.

Complete Requirement 7. Bring your written section to class and be prepared to discuss.

Complete Requirement 8. Bring your written section to class and be prepared to discuss.

Complete Requirement 9. Bring your written section to class and be prepared to discuss.

Family Life – Eagle Required

Requirement 3. Keep a 90 day record of home duties and chores

Requirement 4. Family project

Requirement 5. Carry out a project that involves family participation

Requirement 6b. Plan and carry out family meeting and discuss the subject indicated.

Fingerprinting

All requirements can be taught in class.

First Aid – Eagle Required

Bring your handbook to show your counselor that you have current knowledge of all first-aid requirements for Tenderfoot, Second Class, and First Class ranks per Requirement 1.

Requirement 2d: Bring your prepared first aid kit for your home. Display and discuss its contents with your counselor.

Game Design

All requirements can be taught in class.

Geology

Complete Requirement 4b. Bring notes on process to class.

Complete Requirement 5. Bring your notes/written section / examples to class.

Insect Study

Requirement 5. Bring to class.

Requirement 10. Be prepared to discuss in class.

Requirement 13. Be prepared to discuss in class.

Inventing

Requirement 2. Be prepared to discuss in class.

Requirement 3(c). Be prepared to show and tell.

Requirement 5. Bring your work to class.

Requirement 8.

Landscape Architecture

Complete Requirement 3. Bring written section to class.

Complete Requirement 5. Bring written section to class.

Law

Review People vs McGrew (document will be emailed to you)

Medicine

Complete Requirements 1-7, 10. Bring your notes/report/proof to class.

Please note: for Dr.'s office visit, bring school admit form, letterhead or written prescription as proof.

Personal Management - Eagle Required

Requirement 1(a). Be prepared to discuss in class.

Requirement 1(b). Bring work to class. Be prepared to discuss in class.

Requirement 1(b2). Be prepared to discuss in class.

Requirement 1(b3). Bring note from adult as proof.

Requirement 1(c). Bring notes to class.

Requirement 1(c1). Bring notes to class.

Requirement 1(c2). Bring notes to class.

Requirement 8(a). Bring work to class.

Requirement 8(b). Bring work to class.

Requirement 8(c). Bring work to class.

Requirement 10(a). Be prepared to discuss in class.

Requirement 10(b). Bring notes to class. Be prepared to discuss in class.

Photography

Bring your own digital camera.

Requirement 1b. Bring your Cyber Chip to class.

Plant Science

Requirement 5. Bring a signed note from an adult that you have grown a plant by one of the following methods:
seed, roots, cuttings, tubers, and/or grafting.

Requirement 6. Be prepared to discuss.

Requirement 7. Write a paragraph about a career in one of the following fields that interests you. Agronomy, horticulture, and/or botany.

Requirement 8. Choose one of the following options in Agronomy, Horticulture or Field Botany and complete.
Bring notes and photos to show the counselor.

Programming

Requirement 1. Bring your Cyber Chip to class.

Requirement 2. Bring your notes to class and be prepared to discuss.

Requirement 3. Bring your notes to class and be prepared to discuss.

Robotics (Additional \$50 fee)

Complete Requirement 2. Bring your written section to class.

Complete Requirement 3. Bring your written section to class.

Complete Requirement 6. Bring your written section to class.

Complete Requirement 7. Bring your written section to class.

Scouting Heritage

Complete Requirement 4. Bring journal (a) or report (b) to class.

Complete Requirement 6. Bring collection to class.

Complete Requirement 8. Bring interview notes to class.

Space Exploration (additional \$10 fee)

Requirement 2: Design a collector's card, with a picture on the front and information on the back, about your favorite space pioneer. Share your card and discuss four other space pioneers with your counselor.

Requirement 5: Be prepared to discuss or present.

Requirement 8: Be prepared to discuss.

Stamp Collecting

Requirement 7: Select 2 of the options and bring to class.

Surveying

Requirement 6: Get a copy of the deed to your property or a piece of property assigned by your counselor from the local courthouse or title agency.

Sustainability – Eagle Required

1. Have a family meeting, and ask family members to write down what they think sustainability means. Be sure to take notes. You will need this information again for requirement 5.
2. Water A.
 1. Develop and implement a plan that attempts to reduce your family's water usage;
 2. As a family discuss water usage. To aid in your discussion, if past water bills are available, you may choose to examine a few.
 3. As a family, choose three ways to help reduce consumption.
 4. Implement those ideas for **one month**.
 5. Share what you learn with your counselor, and tell how your plan affected your family's water usage.
2. Food A.
 1. Develop and implement a plan that attempts to reduce your household food waste.
 2. Establish a baseline and then track and record your results for **two weeks**.
 3. Report your results to your family and counselor.
2. Energy B.
 1. Develop and implement a plan that attempts to reduce consumption for one of your family's household utilities.
 2. Examine your family's bills for that utility for three months (past or current)
 3. As a family, choose three ways to help reduce consumption and be a better steward of this resource.
 4. Implement those ideas for **one month**.

Or

2. Energy C.
 1. Evaluate your family's fuel and transportation usage
 2. Review your family's transportation-related bills (gasoline, diesel, electric, public transportation, etc.) reflecting usage for three months (past or current).
 3. As a family choose three ways to help reduce consumption and be a better steward of this resource.
 4. Implement those ideas for **one month**.
 5. Share what you learned with your counselor, and tell how your plan affected your family's transportation habits.
 2. Stuff A.
 1. Keep a log of stuff your family purchases (excluding food items) for two weeks. In your log, categorize each purchase as an essential need (such as soap) or desirable want (such as a DVD). Use the bank log form at the end.
 2. Share what you learn with your counselor.
 - 4 Explore two of the categories. Have a discussion with your family about the two you select. In your discussion, include your observations, and best and worst practices. Share what you learn with your counselor.
- Plastic waste. Discuss the impact plastic waste has on the environment (land, water, air)

1. Electronic waste. Choose three electronic devices in your household. Find out the average lifespan of each, what happens to these devices once they pass their useful life, and whether they can be recycled in whole or part.
2. Food waste. Learn about the value of composting and how to start a compost pile.
3. START a compost pile appropriate for your living situation.
4. Species decline. Explain the term species (plant or animal) decline. Discuss the human activities that contribute to species decline, what can be done to help reverse the decline and its impact on sustainable environment.
5. World Population. Learn how the world's population affects the sustainability of Earth. Discuss three human activities that may contribute to putting Earth at risk, now and in the future.
6. Climate Change. Find a world map that shows the pattern of temperature change for a period of 100 years. Share this map with your counselor, and discuss three factors that scientists believe affect the global weather and temperature.

5. a. After completing requirements 1 through 4, have a family meeting.

Discuss what your family has learned about what it means to be a sustainable citizen.

Talk about the behavioral changes and life choices your family can make to live more sustainably. Share what you learn with your counselor

Veterinary Medicine

Requirement 6: Bring documentation that you completed one of the options listed.

Weather

Complete Requirement 2. Bring your written assignment to class.

Complete Requirement 6. Bring your diagram to class.

Complete Requirement 9a. Bring your instrument and written log to class.

Complete Requirement 10. Bring your written assignment to class.

Complete Requirement 11. Bring your written assignment to class.