Postdoctoral Certificate Program
Course Descriptions, Summer 2015

Postdoctoral Online Registration opens for the spring term on **Wednesday, April 1, 2015**.

- **Link to**: [https://mystar.utmb.edu](https://mystar.utmb.edu)
- Log on with your UTMB username and password, then select “Campus Solutions.” A new window will open after clicking the Campus Solutions link; turn off any active pop-up blockers, or allow/trust pop-ups from [https://mystar.utmb.edu](https://mystar.utmb.edu) in order to gain access to the menu.
- From the menu, select “Student Center”, then “Enroll.”
- In the box labeled “Course ID”, enter the MyStar Course No. indicated with each course description below. Then select “Enter”.
- The course name and number will show up on the next screen. (Be sure to select the number of “Units” or “Credit Hours” if you choose the Mentored Research course.)
- To add another course, select “Add Course”, and the original screen will appear. Repeat the process.
- After you select all the courses you want for the term, click on “Proceed to Step 2 of 3”.
- Review the list of courses; you may add or delete courses at this point. If the list is what you want, select “Finish”.
- If the list of courses on the next screen has all green check marks, you have completed course registration.
- Select “MySchedule” to print your courses for the term.

**Troubleshooting:** If the list has a red “X” in the boxes indicating a problem, click on the “X”, and the error message may explain. If not, return to Student Center. A box on the right should indicate if there are any holds on your record. If the hold is for immunizations, please contact Student Wellness to address the hold. If the hold is for any other reason, please contact the Office of Postdoctoral Affairs to resolve the issue.

**Deadline to Register without Late Fees:** **Friday, May 1, 2015**.

If you have problems registering for your classes, please link to MyStarHelp ([http://www.utmb.edu/enrollmentservices/mystar_info.asp#third](http://www.utmb.edu/enrollmentservices/mystar_info.asp#third)).

A link to each course syllabus is embedded in the course numbers of this document.

**NOTE: As a condition of employment, all postdoctoral scientists must maintain continuous enrollment in the Postdoctoral Certificate Program until about three months before the anticipated conclusion of their appointment. Please notify the Office of Postdoctoral Affairs when you expect to end your postdoctoral appointment.**

**Title:** Mentored Research for Postdoctoral Scholars (Mentored Research)

**Course No.:** [CTPS 6001](#)

**MyStar Course No.:** 1085

**Course Director:** Barral

**Credit Hours:** 1-4 (flexible)

**Description:**
NO CLASSROOM ATTENDANCE: Research report due online at end of term. This OPTIONAL course consists of the training the postdoctoral scholar’s supervisor provides regularly in the laboratory. When research
or manuscript production prevents a postdoc from leaving the lab bench, he or she may register for 4 credit hours of this course alone. It is designed to fine-tune postdoctoral scholars’ research skills in the laboratory or other location where the research takes place or to prepare a polished first-author manuscript under the mentor’s tutelage. The course consists of research or writing, or both, in keeping with the postdoc's field, overseen by the mentor.

**Dates/Times:** May 4 - Aug 14, 2015; mentor’s discretion  
**Location:** Mentor’s lab

**Title:** Research Seminar  
**Course No.:** CTPS 6101  
**MyStar Course No.:** 1086  
**Course Director:** Reistetter  
**Credit Hours:** 1  
**Description:**  
SEMINAR ATTENDANCE, AS REQUIRED BY SUPERVISOR: Personal verification of attendance due at end of term. This course consists of attending regularly scheduled seminars in the postdoc’s department or other seminars of interest, at least weekly.  

**Dates/Times:** May 4 - Aug 14, 2015; departmental schedule  
**Location:** As scheduled

**Title:** Journal Club  
**Course No.:** CTPS 6102  
**MyStar Course No.:** 1087  
**Course Director:** Barral  
**Credit Hours:** 1  
**Description:**  
JOURNAL CLUB ATTENDANCE, AS REQUIRED BY SUPERVISOR: Personal verification of attendance due at end of term. This course consists of attending the regularly scheduled journal club meetings in the postdoc’s department or those elsewhere of interest, at least weekly.  

**Dates/Times:** May 4 - Aug 14, 2015; departmental schedule  
**Location:** As scheduled

**Title:** Career Planning for Postdoctoral Scientists (Career Planning)  
**Course No.:** CTPS 6103  
**MyStar Course No.:** 1088  
**Course Director:** Reistetter  
**Credit Hours:** 1 (required annually)  
**Description:**  
NO CLASSROOM ATTENDANCE: This course is designed to guide postdoctoral scholars in their careers via regular meetings with and oversight by their research mentors. It consists of individual self-assessment, career opportunities research and near-term goal-setting by the postdoc and discussion, planning and implementation with the mentor of an individual development plan (IDP), and preparation of a CV in an accepted U.S. university format. **Grading will be based on returning a CV and completed and signed Compact and IDP via Blackboard on the web.** After the first year and annually, during the same academic term each year of the appointment, the scholar is expected to register for this course and, together with faculty mentor, evaluate progress and revise goals in a new IDP for the following year, review commitments as outlined in the compact
and revise CV. In subsequent years, the signed compact, revised IDP and revised CV are required for course credit.

**Dates/Times:** May 4 - Aug 14, 2015; mentor’s discretion  
**Location:** Mentor’s lab or office

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**Title:** Library Tools & Resources  (Library Tools)  
**Course No.:** CTPS 6106  
**MyStar Course No.:** 1089  
**Instructors:** Trumble  
**Credit Hours:** 1  
**Certificate Program:** Critical Research Skills  
**Description:**

**COMPLETE FIVE OF SEVEN CLASSROOM MODULES BEFORE REGISTERING FOR THIS CLASS:** Participants who provide completion certificates demonstrating they satisfactorily finished five of the classes will receive credit in the term in which they register for this course. Ideally, this would be in the academic term immediately following completion of the five classes.

This course is designed to prepare postdocs and advanced graduate students with the basic skills in using library resources to help with efficient and effective information retrieval and management, to manage references using bibliographic management software and to inform about various metrics used to determine research impact.

Participants will be introduced to the following library tools:

- PubMed  
- MyNCBI: Creating Alerts and Customizing PubMed  
- Electronic Journals: Tips and Tricks  
- Web of Science: Searching for Information and Cited References  
- Who's Citing You? Searching for Cited References  
- Plus others

After completing the course, students will be able to:

- Identify 3 major indicators of research impact.  
- Utilize the Library's web page to locate at least 3 resources for measuring research impact.  
- Discuss advantages and disadvantages of impact measures.  
- Establish an account on EndNote Web.  
- Understand how to import references from a variety of library databases.  
- Organize references with folders and share references/bibliographies.  
- Format references in a variety of styles and utilize the "Cite While You Write Feature."

**Dates/Times:** As participants’ schedules permit. Course list and registration: [http://arweb5.utmb.edu/ar/Library/Services/Classes/tabid/188/Default.aspx](http://arweb5.utmb.edu/ar/Library/Services/Classes/tabid/188/Default.aspx)  
**Location:** Moody Medical Library, Carruth Room, 2nd floor

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**Title:** Biosafety Level 2  (BSL2 Certificate)  
**Course No.:** CTPS 6112  
**MyStar Course No.:** 1090  
**Course Director:** Brocard  
**Credit Hours:** 1  
**Description:**

**CLASSROOM ATTENDANCE REQUIRED:** This course will offer students an in-depth understanding of biosafety principles, practices and techniques that are necessary to successfully conduct research in a BSL2 laboratory. Topics will include risk assessment, personal protective equipment (PPE), proper use and selection
of biological safety cabinets (BSCs) & chemical fume hoods, aerosol producing procedures, biological and chemical exposures, transport of biological materials, disinfection, waste handling, and emergency laboratory procedures. Emphasis will be on development of competencies in fundamental laboratory techniques and using risk assessment to work safely and aseptically in the laboratory.

**Dates/Times:** Choose ONE classroom session: May 5, June 3, June 30, or Aug 4, 2015, 8:30 am-12:30 pm; Hands on training will be scheduled separately.

**Location:** EHS, Material Management Building 2.104

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**Title:** Animal Biosafety Level 2 (ABSL2 Certificate)

**Course No.:** CTPS 6114

**MyStar Course No.:** 1087

**Course Director:** Brocard

**Credit Hours:** 1

**Description:**

CLASSROOM ATTENDANCE REQUIRED: This course provides an in-depth understanding of biosafety principles, practices and techniques necessary to successfully conduct research in an ABSL2 laboratory. Topics include Animal Biosafety Levels, Personal Protective Equipment (PPE), Proper Use and selection of Biological Safety Cabinets (BSCs), Aerosol Producing Procedures, Biological Exposures, Transport of Animals and Biological Materials, Disinfection, Waste handling, and Emergency laboratory procedures. Emphasis is on development of competencies in fundamental laboratory techniques and using risk assessment to work safely and aseptically in the laboratory.

**Dates/Times:** Choose ONE classroom session: May 11, June 8, July 6 or Aug 10, 2014, 1-5 pm; hands on training will be scheduled separately.

**Location:** EHS, Material Management Building 2.104

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**Title:** Animal Biosafety Level 3 (ABSL3 Certificate)

**Course No.:** CTPS 6118

**MyStar Course No.:** 1102

**Course Director:** Brocard

**Credit Hours:** 1

**Description:**

CLASSROOM ATTENDANCE REQUIRED: This course provides an in-depth understanding of biosafety principles, practices and techniques necessary to successfully conduct research in an ABSL3 laboratory. Topics include Animal Biosafety Levels, Personal Protective Equipment (PPE), Proper Use and selection of Biological Safety Cabinets (BSCs), Aerosol Producing Procedures, Biological Exposures, Transport of Animals and Biological Materials, Disinfection, Waste handling, and Emergency laboratory procedures. Emphasis is on development of competencies in fundamental laboratory techniques and using risk assessment to work safely and aseptically in the laboratory.

**Dates/Times:** Choose one classroom session: May 18, June 15, July 13 or Aug 17, 2014, 8:30 am-12:30 pm; hands on training will be scheduled separately.

**Location:** EHS, Material Management Building 2.104

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**Title:** Effective Laboratory & Resource Management

**Course No.:** CTPS 6121

**MyStar Course No.:** 1337

**Course Director:** Reyes

**Credit Hours:** 1
Description:
CLASSROOM ATTENDANCE REQUIRED: This course is designed to prepare postdocs and advanced graduate students with the basic tools to develop and lead a laboratory in academia or industry, manage resources and personnel effectively, and evaluate funding and technology transfer options. After completing the course, postdocs and senior graduate students should be prepared to: successfully negotiate the appointment, tenure and promotion process; hire, manage and retain personnel; prepare and manage a budget and research resources; know when to seek a grant or contract and why; know the difference between regulated studies and grants & contracts, and how to manage them; identify when and why to obtain a grant with multiple investigators and how to manage it; successfully obtain patents and build new businesses and protect intellectual property; and apply export controls and use select agents. The course consists of lectures, discussion and presentations. Grading (satisfactory/unsatisfactory) will be based on attendance and participation in classroom discussions.

Dates/Times: Mondays 3-5 pm, May 11 – July 20 (Except May 25 – Memorial Day Holiday)
Location: Levin Hall 5.521

Title: Presentation Practicum
Course No.: CTPS 6122
MyStar Course No.: 1092
Course Director: Barral
Credit Hours: 1
Description:
ONE CLASSROOM PRESENTATION REQUIRED: Effective presentation of one's research is critical to advancement in the scientific community. This course is designed to provide postdoctoral scientists and senior graduate students with experience in presenting a seminar and learning to perform critical reflection as a routine part of the evaluation process, in order to instill a more scholarly approach to this most important part of the scientific process. Participants will spend time with their mentors preparing their presentations (selecting salient research findings, appropriate figures, etc.); set dates with appropriate programs; give the presentations; review audience evaluations, and prepare their own reflective materials, mostly in the form of “minute-paper” self-evaluations. All these materials will be utilized for grading purposes.

Dates/Times: As determined by the scholar and available seminar schedule.
Location: As determined by department/program seminar schedule

Title: Improving Research with Core Support (Core Facilities)
Course No.: CTPS 6127
MyStar Course No.: 1194
Course Director: Finnerty
Credit Hours: 1
Description:
CLASSROOM PARTICIPATION REQUIRED. In this course, students will be introduced to the Core Facilities at UTMB in order to expand their research projects. They will attend an introductory session in which the course instructor will describe the Core Facilities available at UTMB. Over the following several weeks, students will meet with the directors of at least six separate facilities. During these meetings, students are expected to determine the breadth of services offered and associated costs. Students will then prepare a presentation on the core facilities that they explored. The presentation will include a brief proposal incorporating the services of two cores into their research.

Dates/Times: TBA
Location: Suite 718, Room 710 of the Shriners Hospital for Children
Title: Problem Solving and Decision Making  
Course No.: CTPS 6128  
MyStar Course No.: 1799  
Course Director: Wooten  
Credit Hours: 1  
Description:  
WEB-BASED PARTICIPATION REQUIRED: CTPS 6128 is a completely online postdoctoral (and senior graduate students) web course. The course is designed for those who wish to develop specific skills and knowledge in the management of scientific projects and translational science. This course is set up for a sixteen-week semester, and is structured as a completely asynchronous course to assist with the time management needs of those interested, but for whom a traditional delivery model would be difficult. Seven specific modules are developed along the lines of similar context. One textbook is required, comprehensive PowerPoint slides are provided, and students are required to read and report on select journal articles using links to the Moody Medical Library. Assignments range from brief quizzes to a semester-long Harvard Business Case Analysis, to a Personal Application Project to apply knowledge and skills. Depending upon size of the class, all assignments are based on individual effort and completion. Students who complete this course will be prepared to:  
• Identify one’s own problem solving style and its relative strengths and weaknesses  
• Identify specific techniques to engage others to participate in decision making on the basis of situational factors  
• Understand the stages and steps of decision making and problem solving  
• Effectively apply various models and techniques to reach qualitative and quantitative decisions  
• Facilitate others in creative problem solving  
• Understand the role of innovation in the scientific and research management enterprise  
Dates/Times: Weekly, using Blackboard. Training link will be supplied at the start of the term.  
Location: Online  

Title: Translational Research Project Management  
Course No.: CTPS 6129  
MyStar Course No.: 1800  
Course Director: Wooten  
Credit Hours: 1  
Description:  
CTPS 6129 is a completely online post-doctoral (and select graduate students) web course. The course is designed for those who wish to develop specific skills and knowledge in the management of scientific projects and translational science. This course is set up for a 16-week semester, and is structured as a completely asynchronous course to assist with the time management needs of those interested, but for whom a traditional delivery model would be difficult. Seven specific modules are developed along the lines of similar context. One textbook is required, comprehensive PowerPoint slides are provided, and students are required to read and report on select journal articles using links to the Moody Library. Assignments range from brief quizzes to a semester-long Harvard Business Case Analysis, to a Personal Application Project to apply knowledge and skills. Depending upon size of the class, all assignments are based on individual effort and completion. Students who complete this course will be prepared to:  
• Understand the steps, stages, and roles involved in effective project management  
• Develop skills in organizing project teams, selecting members, clarifying tasks and roles, and implementing effective reporting structures  
• Develop skills involving project leadership and followership for high impact scientific teams  
• Develop an understanding of overall project operations and controls involving planning, coordination, and tracking
• Develop effective processes of effective project communications and effective constituent relations

**Dates/Times:** Weekly, using Blackboard. Training link will be supplied at the start of the term.

**Location:** Online

**Title:** Biosafety Level 3 (BSL3 Certificate)

**Course No.:** CTPS 6203

**MyStar Course No.:** 1103

**Course Director:** Brocard

**Credit Hours:** 2

**Description:**

**PREREQUISITE:** Must be preparing to conduct BSL3 research.

**CLASSROOM ATTENDANCE REQUIRED:** This course will offer students an in-depth understanding of biosafety principles, practices and techniques necessary to successfully conduct research in a BSL3 laboratory. Topics will include risk assessment, personal protective equipment (PPE), proper use and selection of biological safety cabinets (BSCs) & chemical fume hoods, aerosol producing procedures, biological and chemical exposures, transport of biological materials, disinfection, waste handling, and emergency laboratory procedures. Emphasis will be on development of competencies in fundamental laboratory techniques and using risk assessment to work safely and aseptically in the laboratory. The principle objective of this course is to perfect participants’ practices and techniques for BSL3 laboratory work. At the completion of this course, students will be able to evaluate laboratory standard operating procedures by risk assessment, demonstrate mastery of appropriate associated safety techniques, and employ, with proficiency, aseptic techniques and safe use of PPE and BSCs.

**Dates/Times:** The BSL3 classes are given in two half-day sessions; first day is 1:30 – 5:00pm and the second day is 8:30am – 12:30pm. Choose any one of the following pairs of dates:

DATES. May 18-29, June 15-16, or July 13-14.

**Hands on training will be scheduled separately.**

**Location:** Materials Management Warehouse (Building 28)

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**Title:** Ethics of Scientific Research

**Course No.:** MEHU 6101-000

**MyStar No.** 1738

**Course Director:** E. Bernadette McKinney, JD, PhD

**Credit Hours:** 1 (this course is required for all researchers at UTMB – one time only)

**Description:**

**Classroom Attendance Required** This course will employ small-group discussion to explore ethical issues in the conduct of scientific research. Students will meet with co-instructors from the IMH and the GSBS to discuss readings and cases dealing with the philosophy of science, the ordinary practice of scientific research, conflicts of interest, and the value conflicts that arise between scientists and society at large.

**Grading Criteria:** Course grades (S/U) will be determined by attendance, which is required at all sessions (60%), and adequate class participation based on an understanding of the basic concepts of the course (40%).

**Date/Time:** 2-day required course that will meet Wednesday, May 20, 2015, 8:00 a.m.- 4:30 p.m. and Thursday, May 21, 2015, 8:00 a.m.- 4:30 p.m. Attendance at all sessions is required. (Course syllabus will have complete schedule and meeting locations.)