Master of Science in Biomedical and Translational Science (MS-BATS)

Graduate Student Handbook
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**Welcome New Students**

The field of research on a national level has seen a steady decline of well-trained clinical investigators capable of conducting high quality studies. For this reason, Dr. Sherrie Kaplan developed the Masters of Science degree in Biomedical and Translational Science (MS-BATS) at UC Irvine School of Medicine in 2012.

This program is the result of the vision, leadership, dedication and support of many here at UC Irvine.

This degree program is designed to address the acute need for researchers trained to meet the increasingly sophisticated demands of the clinical research environment. It provides advanced training in experimental study to bridge the gap between clinical medicine and basic sciences leading to the translation of scientific discoveries into practical applications that benefit society through patient care.

The program brings together a strong interdisciplinary team of UC Irvine faculty in the clinical and basic sciences in order to teach and prepare scientists in the future conduct of clinical research.
Sherrie Kaplan, PhD, MPH
Director, MS-BATS Program
Assistant Vice Chancellor for Healthcare Evaluation and Measurement
Executive Co-Director, Health Policy Research Institute
Professor of Medicine and Anesthesiology & Perioperative Care

Dr. Sherrie Kaplan is a psychometrician with a PhD in quantitative methods from the UCLA School of Public Health, and has conducted interdisciplinary clinical and health services research, particularly in the areas of quality of care assessment, outcomes research and expansion of the patient’s role in care, for over 30 years. She is currently a Professor of Medicine and Perioperative Medicine and Anesthesiology, and Assistant Vice Chancellor for Healthcare Evaluation and Measurement at the UC Irvine School of Medicine. Her areas of expertise are in the science and statistics of measurement and measures development, methodologic issues involved in the conduct of randomized controlled trials (including most recently the heterogeneity of treatment effects and use of mixed effect model analysis for nested designs), the design and testing of interventions to improve patient care, and the assessment of quality of care and patient outcomes. She is the principal investigator on a research project funded by the Patient Centered Outcomes Research Institute which seeks to add a module on perioperative anxiety and pain to the animated self-reported measure of children's health status (the Child Health Rating Inventories or CHRIS) which she developed. She is a co-Investigator on several federal awards and serves on multiple grant review study sections. Her interests include evaluating quality of care for chronic disease in both adults and children, increasing patient participation in treatment decisions, health status and quality of life assessment, changing physician and patient behavior and doctor-patient communication.

Joel Adelson, MD, PhD, MPH
Community Health and Epidemiology (CH&E)
Faculty of Medicine
Dalhousie University

Dr. Joel Adelson was a pediatrician and emeritus professor emeritus of social medicine and public health, at UCSF Institute for Health and Aging. He served as the Director of Integrating Medicine and Public Health (IMAP) Program, and has studied the social, legal and ethical implications of the California Stem Cell Initiative. He earned his MD and Ph.D. at UCSF, and served as the Director of Gastroenterology at the Montreal Children's Hospital. Before his work on Ebola in western Africa, Dr. Adelson had worked as medical volunteer in Nicaragua and Guatemala during the 1980s and headed a children's hospital in a poor section of Newark, New Jersey. In December 2014, Time Magazine selected the world's Ebola fighters as its choice for Person of the Year.
John Billimek, PhD
Assistant Professor In-Residence, Health Policy Research Institute
Department of Medicine

John Billimek, PhD, is a psychologist and health services researcher at the UC Irvine School of Medicine and Health Policy Research Institute. He collaborates extensively with the Department of Family Medicine to develop research infrastructure and training opportunities in research, and serves as their Director of Research. He has helped lead multiple successful quality improvement projects in the UC Irvine medical center, including a project that resulted in reduced disparities in colorectal cancer screening rates among minority patients served in our clinics. In the MS-BATS program, he teaches a two-course series in Medical Statistics and mentors students in their thesis projects. He also serves as Director for Community Engagement and Administration for the Program in Medical Education for the Latino Community (PRIME-LC), providing mentorship in community engaged research and professional development for students.

Sheldon Greenfield, MD
Co-Director, MS-BATS Program
Donald Bren Professor, Department of Medicine
Executive Co-Director, Health Policy Research Institute

Dr. Sheldon Greenfield is the Executive Co-Director of Health Policy Research Institute at UCI and one of the country's most eminent and experienced health services researchers and policy experts. He and colleagues have produced major policy relevant findings over the past 4 decades, resulting in over 33,000 citations to papers in which he was an author. He played a pivotal role in establishing new fields in medicine and health policy: Nurse Practitioners, Outcomes Research, Patient Participation in Medical Care, and Heterogeneity of Treatment Effects, a major focus of Patient Centered Outcomes Research Institute (PCORI) and Comparative Effectiveness Research. His principal accomplishments lie in the areas of Quality of Care Assessment, Case Mix Determination, Enlarging the Patient Role in Care, Clinical Practice Guidelines and now Comparative Effectiveness Research.

He was Co-Senior Editor of the new Journal of Comparative Effectiveness Research, which has reached index status in Medline in a short period of 3 years, and has served as Chair or Co-Chair of 4 recent Institute of Medicine (IOM) committees: Guidance for the National Healthcare Disparities Report; Cancer Survivors: Lost in Transition; Initial Priorities for Comparative Effectiveness Research; Clinical Practice Guidelines We Can Trust.

Richard Kelly, MD, MPH, AB, JD
Associate Clinical Professor
Anesthesiology and Perioperative Care

Dr. Richard Kelly is an anesthesiologist focused on the treatment of patients with complex cardiac, cardiothoracic and cardiovascular diseases. In addition to general anesthesia, he provides anesthesia services for patients with conditions such as severe aortic stenosis, aortic regurgitation and severe mitral valve diseases. He provides anesthesia for complex thoracic cases such as partial and full pneumonectomies, wedge resections and robot-assisted thoracic procedures. He also provides anesthesia for both open vascular and endovascular procedures including both infrarenal and suprarenal abdominal aortic aneurysm repairs, low and high thoracic aneurysm repairs, and acute aortic dissections. His research interests focus on Legal medicine and ethics in medicine.
Robert Wilson, PhD
Hewitt Research Fellow
Beckman Laser Institute
Health Policy Research Institute

Dr. Wilson, a Hewitt Research Fellow at the Beckman Laser Institute at UCI with a degree in Physics and research background in biomedical optics, imaging and tomography serves as co-Instructor in Introduction to Clinical Epidemiology BATS 210A and Design and Analysis of Clinical Trials BATS 232. He also guest lectures in Comparative Effectiveness BATS 245A on the topic of artificial intelligence (AI) and its potential to provide information on effectiveness research and quality of care. Discussions include the limitations of AI, difficulties of translating AI into practice and basic mechanisms of AI and machine learning.
Forms and BATS Deadlines
For 2-year Program Student

Forms

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Due by</th>
</tr>
</thead>
<tbody>
<tr>
<td>BATS 1, 2, 3</td>
<td></td>
</tr>
<tr>
<td>Complete these forms when you have identified research topic and members of your Thesis Committee:</td>
<td></td>
</tr>
<tr>
<td>1 - MS BATS Individual Research Plan</td>
<td></td>
</tr>
<tr>
<td>2 - Thesis Committee Confirmation</td>
<td></td>
</tr>
<tr>
<td>3 - Research Proposal</td>
<td></td>
</tr>
<tr>
<td>Fall 2020</td>
<td>12/18/20</td>
</tr>
</tbody>
</table>

BATS 299 - Independent Directed Research
1. If this is the first quarter you are enrolled in BATS 299, you will complete pages 1 and 2 (pay attention to the deadlines)
2. If you were enrolled in BATS 299 in the previous quarter, you will complete BATS 299 Addendum
3. It is the student’s responsibility to submit this form to Dr. Kaplan, copy Thuy (ttp@uci.edu) and Daniel (dsnguyen@uci.edu) in a timely manner. Failure to do so may impact grade.

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Due by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2020</td>
<td>11/02/20 – Page 1</td>
</tr>
<tr>
<td></td>
<td>12/07/20 – Page 2 or Addendum</td>
</tr>
<tr>
<td>Winter 2021</td>
<td>02/05/21 – Page 1</td>
</tr>
<tr>
<td></td>
<td>03/08/21 - Page 2 or Addendum</td>
</tr>
<tr>
<td>Spring 2021</td>
<td>04/19/21 – Page 1</td>
</tr>
<tr>
<td></td>
<td>05/31/20 – Page 2 or Addendum</td>
</tr>
</tbody>
</table>

Advancement to Candidacy
Complete this form only when Director Kaplan and your Thesis Committee determines that you are ready to defend.

| Spring 2021 | ***TBD |

Final Degree Paperwork
At the time of defense, complete Master’s Thesis Signature Page, Master’s Thesis Checklist, Master's Exit survey, Proquest, and Degree Certification Request forms.

| Summer 2021 | ***TBD |

***To Be Determined – Subject to Graduate Division deadlines
Forms and BATS Deadlines
For 2-year Student who completed Certificate Program

Forms
Quarter Due by

**BATS 1, 2, 3**
Complete these forms when you have identified research topic and members of your Thesis Committee:
1. MS BATS Individual Research Plan
2. Thesis Committee Confirmation
3. Research Proposal

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Due by</th>
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</thead>
<tbody>
<tr>
<td>Fall 2019</td>
<td>12/13/19</td>
</tr>
</tbody>
</table>

**General Petition**
Complete this form if you took BATS courses through the **Certificate** program in order to receive credit, accompanied by an official transcript. Refer to handbook for instructions.

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Due by</th>
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</thead>
<tbody>
<tr>
<td>Fall 2019</td>
<td>10/14/19</td>
</tr>
</tbody>
</table>

**BATS 299 - Independent Directed Research**
1. If this is the first quarter you are enrolled in BATS 299, you will complete **pages 1 and 2** (pay attention to the deadlines)
2. If you were enrolled in BATS 299 in the previous quarter, you will complete **BATS 299 Addendum**
3. It is the student’s responsibility to submit this form to Dr. Kaplan, copy Thuy (ttp@uci.edu) and Daniel (dsnguyen@uci.edu) in a timely manner. Failure to do so may impact grade.

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<tbody>
<tr>
<td>Fall 2019</td>
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</tr>
<tr>
<td></td>
<td>12/02/19 – Page 2 or Addendum</td>
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<tr>
<td>Winter 2020</td>
<td>02/07/20 – Page 1</td>
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<tr>
<td></td>
<td>03/09/20 - Page 2 or Addendum</td>
</tr>
<tr>
<td>Spring 2020</td>
<td>05/01/20 – Page 1</td>
</tr>
<tr>
<td></td>
<td>06/01/20 – Page 2 or Addendum</td>
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**Advancement to Candidacy**
Complete this form only when Director Kaplan and your Thesis Committee determines that you are ready to defend.

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Due by</th>
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<tbody>
<tr>
<td>Spring 2020</td>
<td>05/29/20</td>
</tr>
<tr>
<td>Summer 2020</td>
<td>08/24/20</td>
</tr>
</tbody>
</table>

**Final Degree Paperwork**
At the time of defense, complete Master’s Thesis Signature Page, Master’s Thesis Checklist, Master’s Exit survey, Proquest, and Degree Certification Request forms.

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Due by</th>
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<tbody>
<tr>
<td>Summer 2020</td>
<td>08/26/20</td>
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<tr>
<td>Fall 2020</td>
<td>11/20/20</td>
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</tbody>
</table>
**Forms and BATS Deadlines**  
**For 1-year (Accelerated) Student**

<table>
<thead>
<tr>
<th>Forms</th>
<th>Quarter</th>
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<td></td>
</tr>
<tr>
<td>Complete these forms when you have identified research topic and members of your Thesis Committee:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. - MS BATS Individual Research Plan</td>
<td>Fall 2019</td>
<td>12/13/19</td>
</tr>
<tr>
<td>2. - Thesis Committee Confirmation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. - Research Proposal</td>
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<td></td>
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<tr>
<td><strong>General Petition</strong></td>
<td></td>
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</tr>
<tr>
<td>Complete this form if you took BATS courses through the Certificate program in order to receive credit, accompanied by an official transcript. Refer to handbook for instructions.</td>
<td></td>
<td></td>
</tr>
<tr>
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</table>

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2. If you were enrolled in BATS 299 in the previous quarter, you will complete **BATS 299 Addendum**  
3. It is the student’s responsibility to submit this form to Dr. Kaplan, copy Thuy (ttp@uci.edu) and Daniel (dsnguyen@uci.edu) in a timely manner. Failure to do so may impact grade.  
   - Fall 2019: 11/01/19 – Page 1  
   - Winter 2020: 02/07/20 – Page 1  
   - Spring 2020: 03/09/20 - Page 2 or Addendum  
   - Spring 2020: 05/01/20 – Page 1  
   - Spring 2020: 06/01/20 – Page 2 or Addendum

**Advancement to Candidacy**  
Complete this form only when Director Kaplan and your Thesis Committee determines that you are ready to defend.  
   - Winter 2020: 03/06/20  
   - Spring 2020: 05/29/20

**Final Degree Paperwork**  
At the time of defense, complete Master's Thesis Signature Page, Master's Thesis Checklist, Master’s Exit survey, Proquest, and Degree Certification Request forms.  
   - Spring 2020: 05/22/20  
   - Summer 2020: 08/26/20
Time to Degree
The curriculum to earn the Master of Science degree in Biomedical and Translational Science (MS-BATS) requires two years [six (6) academic quarters plus one (1) summer quarter] of coursework and research training. During their first year, students will focus on required coursework needed to establish a solid foundation in the fundamental disciplines underlying modern biomedical and clinical research. The second year curriculum provides extensive research training where students will choose a research mentor and apply those principals learned during their first year of coursework.

***A total of 50 units is the minimum requirement in order to earn BATS degree.

<table>
<thead>
<tr>
<th>MS-BATS – Two-Year Curriculum</th>
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<tbody>
<tr>
<td><strong>Year 1</strong></td>
</tr>
<tr>
<td>Saturday</td>
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<tr>
<th><strong>Year 2</strong></th>
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<tbody>
<tr>
<td><strong>Optional Elective</strong></td>
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<tr>
<td>Independent Directed Research (BATS 299)</td>
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<tr>
<td>MS Thesis Research &amp; Writing (BATS 295)</td>
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</tbody>
</table>
2-Year Curriculum
(For students who have successfully completed Clinical Research Certificate Program)
Master of Science Degree
Biomedical and Translational Science

The curriculum to earn the Master of Science degree in Biomedical and Translational Science (MS-BATS) requires two years [six (6) academic quarters plus one (1) summer quarter] of coursework and research training. During their first year, students will focus on required coursework needed to establish a solid foundation in the fundamental disciplines underlying modern biomedical and clinical research. The second year curriculum provides extensive research training where students will choose a research mentor and apply those principals learned during their first year of coursework.

***A total of 50 units is the minimum requirement in order to earn BATS degree.

<table>
<thead>
<tr>
<th>MS-BATS – Two-Year Curriculum (Students who completed Clinical Research Certificate Program)</th>
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<tbody>
<tr>
<td><strong>Year 1</strong></td>
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<td>Year 2</td>
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1-Year Curriculum (Accelerated Path)
Master of Science Degree
Biomedical and Translational Science

The curriculum to earn the Master of Science degree in Biomedical and Translational Science (MS-BATS) requires one year [three (3) academic quarters plus one (1) summer quarter] of coursework and research training. Students will focus and establish a solid foundation in the fundamental disciplines underlying modern biomedical and clinical research. Students are expected to develop a study design, conduct research, choose a research mentor, write, defend, and submit thesis in one year, applying the principals learned throughout the year.

***A total of 50 units is the minimum requirement in order to earn BATS degree.

<table>
<thead>
<tr>
<th>MS-BATS – One-Year Curriculum (Accelerated Path)</th>
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<tbody>
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<td><strong>Year 1</strong></td>
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Proposed Timeline for 2-year Program Student

***The information below provides a general overview of the timeline to complete the Master of Science degree in Biomedical and Translational Science. Dates may differ slightly for each student.

Registration: Students are personally responsible for ensuring that their course enrollment is correct and completed, and have their fees paid, no later than the end of the third week of each quarter: https://www.reg.uci.edu/enrollment/registration.html

Year 1
1. Follow the 2-Year Curriculum grid.
2. Refer to Forms and HPRI Deadlines for 2-year Program Student
3. Ethics (BATS 296) course may be taken at the start or at the end of Year 1.

Year 2
Fall Quarter
1. Conduct research, draft your thesis, form your Thesis Committee
2. It is the student’s responsibility to meet with thesis committee regularly, set meeting agendas, prepare discussion materials. Ask questions early!

Winter Quarter
Continue working on your thesis.

Spring Quarter
With Director Kaplan’s approval, the student confirms with each Committee member that they are ready to advance and plan to defend their thesis in the following quarter. The student is responsible in making sure the Advancement to Candidacy form is agreed and signed by each Committee member, submitted to and approved by Graduate Division one quarter before the student defends and plan on graduating.

IMPORTANT: Graduate Division Filing Deadlines are strict and non-negotiable.

Summer Quarter
1. You must be enrolled as a student in order to earn a degree.
2. You can only defend your thesis when each Committee member agrees you are ready to present your findings.
3. Failure to send the best version of your thesis to your Committee members for review before your actual defense may result in cancelation of your defense presentation.
4. After you defend, you must have Committee approval before submitting a thesis electronically. The library is very particular about the format of the thesis. There will be information sessions that discuss thesis preparation and filing procedures.
5. Last step is paying the Master’s Thesis Submission Fee at the Cashier’s office and bringing Final Degree Paperwork to Graduate Division office.
Final Degree Paperwork:
- Master's Thesis Submission Checklist
- Master's Thesis/Signature Page Report on Final Examination for the Master's Degree
- Confirmation email of thesis submission from Administrator@proquest.com
- Confirmation page of UCI Master's Exit Survey: http://apps.grad.uci.edu/exitsurvey/
- Degree Certification Request form

M.S. degree conferred!

Diploma:
You will receive a master’s diploma 4 months later. Diplomas are not automatically mailed. Make sure the Registrar has a correct address before you leave. They will use this address to let you know when to pick up your diploma.
Proposed Timeline for 2-year Student who successfully completed Certificate Program

***The information below provides a general overview of the timeline to complete the Master of Science degree in Biomedical and Translational Science. Dates may differ slightly for each student.

Registration: Students are personally responsible for ensuring that their course enrollment is correct and completed, and have their fees paid, no later than the end of the third week of each quarter: https://www.reg.uci.edu/enrollment/registration.html

Year 1
1. Follow the 2-Year Curriculum/Students who have successfully completed Clinical Research Certificate Program grid
2. Complete course requirements in Clinical Research Certificate Program

Year 2
**Fall Quarter**
1. Continue to follow the 2-Year Curriculum/Students who have successfully completed Clinical Research Certificate Program grid
2. Refer to Forms and HPRI deadlines for 2-year Student who completed Certificate Program
3. Conduct research, draft your thesis, form your Thesis Committee
4. It is the student’s responsibility to meet with thesis committee regularly, set meeting agendas, prepare discussion materials. Ask questions early!

**Winter Quarter**
Continue working on your thesis.

**Spring Quarter**
With Director Kaplan’s approval, the student confirms with each Committee member that they are ready to advance and plan to defend their thesis on the following quarter. The student is responsible for making sure the Advancement to Candidacy form is agreed and signed by each Committee member, submitted to and approved by Graduate Division one quarter before the student defends and plan on graduating.

**IMPORTANT:** Graduate Division Filing Deadlines are strict and non-negotiable.

**Summer Quarter**
1. You must be enrolled as a student in order to earn a degree.
2. You can only defend your thesis when each Committee member agrees you are ready to present your findings.
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Final Degree Paperwork:
- Master's Thesis Submission Checklist
- Master's Thesis/Signature Page Report on Final Examination for the Master's Degree
- Confirmation email of thesis submission from Administrator@proquest.com
- Degree Certification Request form

M.S. degree conferred!

Diploma:
You will receive a master's diploma 4 months later. Diplomas are not automatically mailed. Make sure the Registrar has a correct address before you leave. They will use this address to let you know when to pick up your diploma.
Proposed Timeline for 1-year (Accelerated) Student
For students who completed “Ethics” course in summer, before becoming a fulltime MS-BATS student

***The information below provides a general overview of the timeline to complete the Master of Science degree in Biomedical and Translational Science. Dates may differ slightly for each student.

Registration: Students are personally responsible for ensuring that their course enrollment is correct and completed, and have their fees paid, no later than the end of the third week of each quarter:
https://www.reg.uci.edu/enrollment/registration.html

Fall Quarter
1. Follow the 1-Year Curriculum (Accelerated Path) grid
2. Refer to Forms and HPRI Deadlines for 1-year (Accelerated) Student
3. Conduct research, draft your thesis, form your Thesis Committee
4. It is the student's responsibility to meet with thesis committee regularly, set meeting agendas, prepare discussion materials. Ask questions early!

Winter Quarter
Continue working on your thesis.

With Director Kaplan's approval, the student confirms with each Committee member that they are ready to advance and plan to defend their thesis on the following quarter. The student is responsible for making sure the Advancement to Candidacy form is agreed and signed by each Committee member, submitted to and approved by Graduate Division one quarter before the student defends and plan on graduating.

IMPORTANT: Graduate Division Filing Deadlines are strict and non-negotiable.

Spring Quarter
1. You must be enrolled as a student in order to earn a degree.
2. You can only defend your thesis when each Committee member agrees you are ready to present your findings.
3. Failure to send the best version of your thesis to your Committee members for review before your actual defense may result in cancelation of your defense presentation.
4. After you defend, you must have Committee approval before submitting a thesis electronically. The library is very particular about the format of the thesis. There will be information sessions that discuss thesis preparation and filing procedures.
5. Last step is paying the Master's Thesis Submission Fee at the Cashier’s office and bringing Final Degree Paperwork to Graduate Division office.
Final Degree Paperwork:
- Master's Thesis Submission Checklist
- Master's Thesis/Signature Page Report on Final Examination for the Master's Degree
- Confirmation email of thesis submission from Administrator@proquest.com
- Degree Certification Request form

M.S. degree conferred!

**Diploma:**
You will receive a master’s diploma 4 months later. Diplomas are not automatically mailed. Make sure the Registrar has a correct address before you leave. They will use this address to let you know when to pick up your diploma.
Proposed Timeline for 1-year (Accelerated) Student
For students who will complete the “Ethics” course in the summer, after having completed a whole year of MS-BATS coursework

***The information below provides a general overview of the timeline to complete the Master of Science degree in Biomedical and Translational Science. Dates may differ slightly for each student.

Registration: Students are personally responsible for ensuring that their course enrollment is correct and completed, and have their fees paid, no later than the end of the third week of each quarter:
https://www.reg.uci.edu/enrollment/registration.html

Fall Quarter
1. Follow the 1-Year Curriculum (Accelerated Path) grid
2. Refer to Forms and HPRI Deadlines for 1-year (Accelerated) Student
3. Conduct research, draft your thesis, form your Thesis Committee
4. It is the student’s responsibility to meet with thesis committee regularly, set meeting agendas, prepare discussion materials. Ask questions early!

Winter Quarter
Continue working on your thesis.

Spring Quarter
With Director Kaplan’s approval, the student confirms with each Committee member that they are ready to advance and plan to defend their thesis on the following quarter. The student is responsible for making sure the Advancement to Candidacy form is agreed and signed by each Committee member, submitted to and approved by Graduate Division one quarter before the student defends and plan on graduating.

IMPORTANT: Graduate Division Filing Deadlines are strict and non-negotiable.

Summer Quarter
1. You are enrolled in Ethics course.
2. You can only defend your thesis when each Committee member agrees you are ready to present your findings.
3. Failure to send the best version of your thesis to your Committee members for review before your actual defense may result in cancelation of your defense presentation.
4. After you defend, you must have Committee approval before submitting a thesis electronically. The library is very particular about the format of the thesis. There will be information sessions that discuss thesis preparation and filing procedures.
5. Last step is paying the Master’s Thesis Submission Fee at the Cashier’s office and bringing Final Degree Paperwork to Graduate Division office.
Final Degree Paperwork:
- Master’s Thesis Submission Checklist
- Master’s Thesis/Signature Page Report on Final Examination for the Master’s Degree
- Confirmation email of thesis submission from Administrator@proquest.com
- Confirmation page of UCI Master’s Exit Survey: http://apps.grad.uci.edu/exitsurvey/
- Degree Certification Request form

M.S. degree conferred!

Diploma:
You will receive a master’s diploma 4 months later. Diplomas are not automatically mailed. Make sure the Registrar has a correct address before you leave. They will use this address to let you know when to pick up your diploma.
Thesis Committee
Selecting a Research Advisor

In this handbook, we have provided Faculty who has served as Thesis Committee Chairs and Faculty who has served as Thesis Committee Members.

1. Your Thesis Committee should provide guidance on your research project and will ultimately judge whether or not you have satisfied the requirements for a master’s degree at your Thesis defense.

2. Look for the faculty profiles and review them. Look for research activities that may be aligned with your research interests.

3. Once you identify some faculty that might be of interest to you, contact them via email. If they are not able to work with you, ask them if they know of anyone in the department who would be a good fit for you. Have your CV or resume available, detailing your research, work experience, presentations, publications, poster sessions. This will help the faculty member with determining if your experience would be beneficial to his or her lab.

4. Schedule a discussion meeting with Dr. Kaplan to obtain her approval of your research project.

5. Student choose at least three faculty members who will comprise of the Thesis Committee.

6. In order to earn BATS degree, at least two members of Thesis Committee must be Academic Senate. One of the Thesis Committee members must be a BATS faculty.

<table>
<thead>
<tr>
<th>Thesis Committee Chair must be</th>
<th>the primary mentor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>School of Medicine faculty</td>
</tr>
<tr>
<td></td>
<td>a member of Academic Senate***</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Thesis Committee Member</th>
<th>affiliated with School of Medicine (desired)</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>a member of Academic Senate*** (exceptions can be made with adequate notice and justification)</td>
</tr>
<tr>
<td></td>
<td>Faculty from other UC institutions may serve as Thesis Committee member</td>
</tr>
</tbody>
</table>

***Academic Senate member: | Non-Academic Senate: |
Assistant Professor | Health Sciences Clinical Assistant Professor |
Associate Professor | Health Sciences Clinical Associate Professor |
Professor | Health Sciences Clinical Professor |
Assistant Professor in Residence | Adjunct Assistant Professor |
Associate Professor in Residence | Adjunct Associate Professor |
Professor in Residence | Adjunct Professor |
Assistant Professor of Clinical |
Associate Professor of Clinical |
Professor of Clinical |
7. After you have selected your Committee Chair and Members, provide the name to Marissa to confirm if the faculty member is an Academic Senate member. If the faculty member is not an Academic Senate member, we can request exceptions with justification. There is no guarantee of approval.

8. With Director Kaplan's approval of your research project, your Committee Chair and Members will sign **BATS 1-3 forms**.

9. Thesis Committee members may not be changed without written approval of Director Kaplan and Graduate Division.

10. Meet with your Thesis Committee regularly. The goal of these meetings is to provide input and feedback on your thesis progress, and to approve of the proposed changes in the direction of your thesis work. **It is your responsibility to schedule these meetings.**
Faculty who have served as Thesis Committee Chairs

**Thomas Ahlering, MD**  
Vice Chairman and Professor, Urology  
Chief, Division of Oncological Urology

**Yama Akbari, MD, PhD**  
Assistant Professor, Neurology, Internal Medicine

**Cristobal Barrios, MD**  
Health Sciences Associate Clinical Professor, Surgery

**Samuel Bederman, MD, PhD, FRCSC**  
Spine Surgeon, Assistant Clinical Professor, Orthopaedic Surgery

**John Billimek, PhD**  
Assistant Professor In-Residence, Health Policy Research Institute  
Department of Medicine

**Matthew Brenner, MD**  
Professor, Medicine

**Daniela Bota, MD, PhD**  
Associate Professor, Neurology  
Medical Director, Neuro-Oncology Program

**Robert Bristow, MD**  
The Philip J. DiSaia Chair, Gynecologic Oncology  
Professor, Obstetrics & Gynecology  
Director, Division of Gynecologic Oncology

**Belinda Campos, PhD**  
Associate Professor, Chicano/Latino Studies  
Program in Medical Education for the Latino Community (PRIME-LC)

**Bharath Chakravarthy, MD**  
Assistant Professor of Clinical EM, Emergency Medicine

**Hoda Anton-Culver, PhD**  
Professor and Chair, Epidemiology  
Director, Genetic Epidemiology Research Institute  
Professor, School of Social Ecology

**Gregory Evans, MD**  
Chair, Plastic Surgery  
Professor, Surgery
Christian Fox, MD
Professor and Vice Chair - Academic Affairs,
Professor of Clinical Emergency Medicine
Assistant Dean, Student Affairs

John Fruehauf, MD, PhD
Professor, Clinical Medicine, Biomedical Engineering, and Biological Chemistry
School of Medicine

Sheldon Greenfield, MD
Professor, Medicine
Executive Co-Director, Health Policy Research Institute

Wirachin Hoonponsimanont, MD, MS
Assistant Professor, Emergency Medicine
Director, EM Clerkship and EMR-AP, Department of Emergency Medicine

Susan Huang, MD
Professor, Medicine and Division of Infection Diseases
Director, Epidemiology and Infection Prevention

Sherrie Kaplan, PhD, MPH
Assistant Vice Chancellor, Healthcare Evaluation and Measurement
Executive Co-Director, Health Policy Research Institute
Director, MS-BATS Program
Professor, Medicine and Anesthesiology & Perioperative Care

Antoine Khoury, MD, FRSCSC, FAAP
Chief, Pediatric Urology
Walter R. Schmid Professor, Urology and Pediatric Urology

Jaime Landman, MD
Professor and Chair, Urology

Thay Lee, PhD
Professor in Residence, Orthopaedic Surgery
Vice Chair for Research, Orthopaedic Surgery
Professor in Residence, Biomedical Engineering

Shahram Lotfipour, MD, MPH
Professor, Emergency Medicine and Public Health

Shaista Malik, MD, PhD, MPH
Associate Professor, Cardiology
Medical Director, Preventive Cardiology and Cardiac Rehab
Director, Women's Heart Center
Cardiology Fellowship Program Director

Tahseen Mozaffar, MD
Professor and Interim Chair, Neurology
Dana Mukamel, PhD
Professor, Medicine

Hannah Lui Park, PhD
Assistant Professor, Medicine
Program Director, Athena Breast Health Network
Associate Director, Genetic Epidemiology Research Institute

Dara Sorkin, PhD
Associate Professor, Medicine

Krishnansu Tewari, M.D.
Professor and Interim Division Director, Obstetrics & Gynecology

Ping Wang, MD
Professor, Medicine and Biological Chemistry
Director, Center for Diabetes Research and Treatment
Division Chief, Endocrinology, Diabetes and Metabolism Medicine

Brian Wong, MD
Professor and Vice Chairman, Otolaryngology
Professor, Surgery School of Medicine
Faculty who have served as Thesis Committee Members

Gurpreet Ahuja, MD
Assistant Professor, Otolaryngology
Division Chief of Otolaryngology, CHOC

Yama Akbari, MD, PhD
Assistant Professor, Neurology, Internal Medicine

Gregory Albers, MD, FACP
Associate Clinical Professor of Medicine, School of Medicine

Craig Anderson, PhD, MPH
Research Specialist, Emergency Medicine

Hoda Anton-Culver, PhD
Professor and Chair, Epidemiology
Director, Genetic Epidemiology Research Institute
Professor, School of Social Ecology

Antonio Arrieta
Division Chief, Infectious Disease, CHOC
President, Medical Staff, CHOC

Nicole Bernal, MD
Assistant Clinical Professor, Surgery

John Billimek, PhD
Assistant Professor In-Residence, Health Policy Research Institute and
Department of Medicine

Alexander Boiko, PhD
Assistant Professor, Molecular Biology and Biochemistry

Robert Bristow, MD
The Philip J. DiSaia Chair, Gynecologic Oncology
Professor, Obstetrics & Gynecology
Director, Division of Gynecologic Oncology

Belinda Campos, PhD
Associate Professor, Chicano/Latino Studies
Program in Medical Education for the Latino Community (PRIME-LC)

Jose Carrillo, MD
Health Sciences Assistant Clinical Professor, Neurology
Assistant Professor, Hematology/Oncology
Director, Neuroscience Clerkship
Bharath Chakravarthy, MD  
Assistant Professor of Clinical EM, Emergency Medicine

Sarah Choi, PhD  
Assistant Professor, Nursing Science

Judith Chung  
Associate Professor, Clinical Obstetrics and Gynecology

Dan Cooper, MD  
Professor, Pediatrics  
Chief, Pediatric Pulmonology Division

Maria Corrada, MS, ScD  
Professor In-Residence, Neurology  
Professor, Epidemiology  
Professor, Institute for Memory Impairments and Neurological Disorders

Matthew Dolich, MD  
Clinical Professor, Surgery  
Director, General Surgery Residency Program

Donald Forthal, MD  
Professor of Medicine and Molecular Biology and Biochemistry,  
Center for Virus Research  
Chief, Division of Infectious Diseases

Sumit Garg, MD  
Associate Professor, Ophthalmology  
Medical Director, Gavin Herbert Eye Institute  
Vice Chair, Clinical Ophthalmology

Sheldon Greenfield, MD  
Professor, Department of Medicine  
Executive Co-Director, Health Policy Research Institute

Harry Haigler, PhD  
Professor, Physiology/Biophysics  
Associate Dean, Medical Education

Afshan Hameed, MD  
Clinical Professor, Obstetrics & Gynecology  
Clinical Professor, Cardiology

Donald Hoffman, PhD  
Professor, Cognitive Sciences, School of Social Sciences  
Professor, Philosophy, School of Humanities

Corey Hugen, MD  
Assistant Clinical Professor, Urology
Anthony James, PhD  
Donald Bren Professor, Microbiology & Molecular Genetics  
Donald Bren Professor, Molecular Biology and Biochemistry

Zeev Kain, MD, MBA  
Chancellor's Professor, Anesthesiology and Perioperative Care  
Executive Director, Center on Stress and Health

Peter Kaiser, PhD  
Professor & Chair, Biological Chemistry

Sherrie Kaplan, PhD, MPH  
Assistant Vice Chancellor, Healthcare Evaluation and Measurement  
Executive Co-Director, Health Policy Research Institute  
Director, MS-BATS Program  
Professor, Medicine and Anesthesiology & Perioperative Care

Claudia Kawas, MD  
Professor, Neurology  
Professor, Neurobiology and Behavior

Kristen Kelly, MD  
Clinical Vice Chief, Dermatology

Richard Kelly, MD, MPH, AB, JD  
Associate Clinical Professor, Anesthesiology and Perioperative Care

Chandana Lall, MD  
Section Chief of Abdominal Imaging, Radiological Sciences  
Professor (Clinical X) Step II & Vice Chair, Radiological Sciences

Jaime Landman, MD  
Professor and Chair, Urology

Karen Lane, MD  
Health Sciences Associate Clinical Professor, Surgery  
Clinical Director, Breast Health Center

Shahram Lotfipour, MD, MPH  
Professor, Emergency Medicine

Kenneth Miller, MD, PhD  
Consultant, BSL3 Biosafety Training Program  
Medical Director, OC Fire Authority

Steven Mills, MD  
Chief, Colon & Rectal Division  
Associate Clinical Professor, Surgery  
Program Director, Colorectal Surgery Residency
Anna Morenkova, MD  
Health Sciences Assistant Clinical Professor, Neurology

Dana Mukamel, PhD  
Professor, Department of Medicine

Ronald Navarro, MD  
Physician, Kaiser Permanente South Bay Medical Center Orthopedics Department  
Regional Chief of Orthopaedic Surgery, Kaiser Permanente South Bay Medical Center

Danh Nguyen, MD  
Professor, Department of General Internal Medicine  
Director, Biostatistics, Epidemiology and Research Design Unit

Diane Nugent, MD  
Professor and Chief of Hematology Division, UCI Department of Pediatrics  
Medical Director, Hematology and Blood and Donor Services, CHOC Children’s

Andrew Odegaard, PhD  
Assistant Professor, Epidemiology

Megan Osborn, MD, MPHE  
Associate Professor, Clinical Emergency Medicine  
Director, Residency Program  
Senior Associate Editor, JETem  
Co-Director, Multimedia Design and Educational Technologies Fellowship  
Vice Chair of Education

Shlomit Radom-Aizik, PhD  
Assistant Professor, Department of Pediatrics  
Executive Director, Pediatric Exercise and Genomics Research Center

Leslie Randall, MD  
Associate Professor, Obstetrics & Gynecology  
Director, Medical Education in Gynecologic Oncology  
Director, Fellowship in Gynecologic Oncology

Andrew Reikes, MD  
Health Sciences Clinical Professor, General Internal Medicine

Christopher Reist, MD, MBA  
Associate Professor, Psychiatry & Human Behavior  
Assistant Dean, School of Medicine

Dara Sorkin, PhD  
Associate Professor, Medicine

Michael Stamos, MD  
Dean, School of Medicine  
Professor and Chair, Surgery
Hal Stern, PhD
Professor, Statistics
Donald Bren School of Information and Computer Sciences

Min-Ying (Lydia) Su, PhD
Professor, Radiological Sciences and Physics
Director, Tu & Yuen Center for Functional Onco-Imaging

Shannon Toohey, MD
Health Sciences Assistant Clinical Professor, Emergency Medicine

Edward Uchio, MD
Associate Professor of Clinical Urology, Urology
Director, Urologic Oncology
Director, Clinical Trial Research

Isaac Yang, MD
Associate Professor of Surgery, Neurosurgery, UCLA School of Medicine

Nathan Wong, PhD, MPH
Professor, Medicine and Epidemiology
Director, Preventive Cardiology

Argyrios Ziogas, PhD
Associate Adjunct Professor, Epidemiology
Guideline on Thesis Structure
Thesis Structure

Note: Director Kaplan will provide an in depth lecture on the Contents of Master's Thesis and Page Specifications

Chapter 1 – Introduction (3-5 pages)
- Background
- Identify the problem
- Ask no more than three research questions
- What are you going to do to move science along?
- What is your directional hypothesis?
- Where are you headed?

Chapter 2 – Background (6-8 pages)
- Thorough literature review
- What do we know about the problem?
- Be sure to read primary sources (do not cite secondary sources without reading primary sources)

Chapter 3 – Methods (8-10 pages)
- What are you going to do?
- Describe your study and sample
- Research design
- Key study measures
- Data collection strategies/measures (data abstract, patient questionnaire...)
- Statistical methods/analytic plan

Chapter 4 – Results (10+ pages)
- What you found
- Tables, figures, charts, graphs, pictorial data presentations
- No interpretations
- Tie back to research questions

Chapter 5 – Discussion (8+ pages)
- “So what?”
- What do we know now that we didn’t know before?
- Why is this important?
- How have you advanced science?
- Where does this leave us and where do we go next?
- Next steps
Contents of Master’s Thesis – Opening Pages

Title Page

- Author's name as it appears on official University records
- List the degree earned
- The full name of each committee member

Words used in the manuscript title are the access points for researchers who may use keyword-searching techniques to identify works in various subject areas. Use word substitutes, not symbols or formulas, to ensure effective retrieval from on-line indexes. Use concise titles containing words descriptive of the work; emphasis should be on nouns, with easily identifiable key words.

Copyright Page

- If you have previously published parts of your manuscript, you must list the copyright holders.
- If a copyright statement is not being included, insert a blank sheet of 100% cotton paper as a substitute. The University Archives strongly recommends that you include a copyright statement.

Dedication Page (Optional) Table of Contents

- All sections of the manuscript are listed in the table of contents except the title page, the copyright page, the dedication page, and the table of contents. The sections to be included in the table of contents are: lists of symbols, figures, tables, and illustrations, acknowledgments, curriculum vitae, abstract, introduction, each chapter, bibliography, and each appendix.
- Novels and collections of poems are not exempt from the requirement to include a table of contents.

Acknowledgments Page

- You must acknowledge grants and other funding assistance.
- If you have used copyrighted material of your own or others, you must include a statement to inform the reader that permission has been granted and state the source of the permission.
- You may also acknowledge the contributions of professors and friends.

References Section Bibliography

- Format the references or bibliography in the style most commonly used in your academic discipline (including the placement of references at the end of each chapter if necessary).
- Appendices
  - List each appendix separately in the table of contents.
  - Tables, figures, charts, or photos are placed at the end of the manuscript form an appendix and should not be listed in a list of figures, list of tables, or list of illustrations in your preliminary pages.
Resources
UCI Biomedical and Translational Science
Research Training Program Resources

Employment
- http://career.uci.edu/
- https://staffing2.hr.uci.edu/CSS_External/CSSPage_Welcome.asp

Faculty Profile System
- http://www.faculty.uci.edu/

Financial Aid
- http://www.ofas.uci.edu/content/

Graduate Division
- Website - http://www.grad.uci.edu/

International Center
- http://www.ic.uci.edu/

Parking
- http://www.parking.uci.edu/

Registrar
- http://www.reg.uci.edu/
Important Contacts:

MS-BATS Program Office
100 Theory Building, Suite #110
Irvine, CA 92697-5800

Sherrie H. Kaplan, PhD, MPH
Executive Director, Biomedical & Translational Science Degree Program
Executive Co-Director, Health Policy Research Institute
Assistant Vice Chancellor, Healthcare Measurement and Evaluation
Professor, Department of Medicine

Executive Assistant to Director Kaplan:
Daniel Nguyen
dsguyen@uci.edu
Tel: 949.824.7286

Thuy Pham
Chief Program Officer, Biomedical & Translational Science Degree Program
ttp@uci.edu
Tel: 949.824.0095

Marissa Saplala
Coordinator, Biomedical & Translational Science Degree Program
msaplala@uci.edu
Tel: 949.824.9041
Forms

BATS 1-3
BATS 299
Graduate Division forms: https://www.grad.uci.edu/forms/index.php
Form 1
MS-BATS Individual Research Plan
(To be submitted two quarters before degree completion)

Student Name: ____________________________
Date: ____________________________

Area of research interest:
________________________________________________________________________________________
________________________________________________________________________________________

Description of proposed study design:
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________

Proposed Timeline:
Develop study design/Conduct Research ____________________________ (Quarter/Year)
Write Thesis ____________________________ (Quarter/Year)
Defend/Submit Thesis ____________________________ (Quarter/Year)

_______________________________________             __________________
(Committee Chair Signature)                              (Date)
Form 2
MS-BATS
Thesis Committee Confirmation Form

Student Name:_________________________________
Date:_________________________________________

BATS Thesis Committee Members:

__________________________________________________________________________
Thesis Committee - Chair (Name, title, department) (Signature)

__________________________________________________________________________
Thesis Committee – 1st Member (Name, title, department) (Signature)

__________________________________________________________________________
Thesis Committee - 2nd Member (Name, title, department) (Signature)

__________________________________________________________________________
(BATS Student name) (Signature) (Date)
Student Name _______________________
Date ______________________________

Synopsis of Proposal (Include brief background, hypothesis, research methodology, and proposed time frame):
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________

Approved by:

(Thesis Chair Name) ______________________ (Signature) ______________________ (Date) ______________________

(Thesis Committee- 1st Member Name) ______________________ (Signature) ______________________ (Date) ______________________

(Thesis Committee-2nd Member Name) ______________________ (Signature) ______________________ (Date) ______________________