Jessica Campbell 🆔
Teaching Dossier

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Teaching Philosphy

To come.

Teaching Assistantships

Fall 2020	**Stars and Planets** (AST221)
Winter 2020	**Galaxies and Cosmology** (AST222)
	Led tutorials; held help sessions; marked problem sets; managed discussion board.
Fall 2019	**Stars and Planets** (AST221)
	Led help sessions; held office hours; marked problem sets; marked term assignment; answered student emails; managed discussion board; invigilated and marked midterm; invigilated and marked final exam.
Summer 2019	**Life on Other Worlds** (AST251)
	Held office hours; managed student emails; marked term assignments; invigilated and marked midterm; invigilated and marked final exam.
Winter 2019	**Life on Other Worlds** (AST251)
	Designed weekly homework questions; marked term assignments; marked midterm; marked final exam.
Fall 2018	**Great Moments in Astronomy** (AST210)
	Held office hours; managed student emails and online discussion board; marked assignments; invigilated midterm; marked final exam.
Winter 2018	**Life on Other Worlds** (AST251)
	Marked assignments; marked midterm and final exam.
Fall 2017	**Great Moments in Astronomy** (AST210)
	Held office hours; managed student emails and online discussion board; marked assignments; invigilated midterm; marked final exam.
Winter 2017	**Stars and Galaxies** (AST201)
	Led interactive discussion-based tutorials; marked project proposals and final projects; led telescope observing night; invigilated midterm and final exam.
Fall 2016	**Stars and Galaxies** (AST101)
	Led interactive discussion-based tutorials; marked project proposals and final projects; led telescope observing night; invigilated midterm and final exam.
Winter 2016	**The Sun and its Neighbours** (AST201)
	Managed student emails and online discussion board; marked assignments; led telescope observing night; invigilated midterm and final exam.
	Great Astronomical Issues (PMU199)
	Assisted students with in-class course material; held office hours; marked project proposals and final projects; managed student emails; gave feedback on final assignments.
Winter 2015	**Stars and Galaxies** (AST201)
	Led interactive discussion-based tutorials; marked project proposals and final projects; led telescope observing night; invigilated midterm and final exam.

Student Mentorship

Student Supervision ....

2020 – 2021	**Parampreet Singh**, undergraduate thesis (AST425Y)

Student Mentorship ....

2018 – 2019	**James Lane**, incoming PhD student, UofT
2017 – 2018	**Colleen Gilhuly**, incoming PhD student, UofT
	Victor Chan, incoming PhD student, UofT

Professional Development in Teaching

2015 – 2020	**Teaching Assistants' Training Program (TATP)**, UofT
	Courses include:
	Active Learning Strategies for Online Teaching
	Women in STEM: Teaching and Learning Roundtable
	Teaching Dossiers and Statements of Teaching Philosophy
	Creating a Culture of Accessibility
	Active Learning in Discussion-based Classrooms
	PowerPoint and Beyond – Using Visual Aids in the Classroom

Evidence of Teaching Effectiveness

"Astronomy may seem intimidating, but it is due to T.A.s like yourself who help students learn and understand its content. I am grateful for all your extra office hours and advice throughout the semester." (Undergraduate student; PMU199 and AST201, Fall 2016)

"Jessica was always open to questions and was constantly available to help on the [discussion] forum, even closer to the due dates of assignments. I was also a beginner to coding and she made me feel a lot better about it, and instilled a lot of confidence in me. " (Undergraduate student; AST222, Winter 2020)

"She didn't just answer our questions, she went beyond that and tied them to previous concepts to deepen my understanding. " (Undergraduate student; AST222, Winter 2020)

"Jessica was really helpful when it came to the assignments, and also when it came to my research report. For the assignments she would explain things clearly, and for my report she answered my oddly specific questions to the best of her ability." (Undergraduate student; AST221, Fall 2019)

"When you TA, ... you're very present with the students – with your body language, where you sit, the tone you use, and the sorts of questions you ask. By being present in their learning and inserting yourself into their experience like that, ... it really does a lot to center the learning experience on them. When I TA'd with you, it very much seemed that you made sure *your* experience was very much about *their* experience. That struck me as both very brave and very effective." (Co-TA; AST201, Winter 2018)

"[Jessica] promptly responded to request for feedback on [my] report with very detailed and precise criticisms. [She] gave helpful answer[s] to questions and/or directed to good resources in help sessions. Friendly." (Undergraduate student; AST221, Fall 2019)

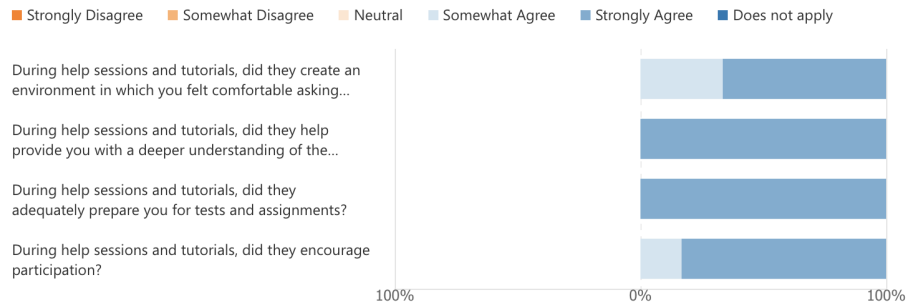5. If applicable, please answer the following questions about Jessica:
   More Details

■ Strongly Disagree   ■ Somewhat Disagree   ■ Neutral   ■ Somewhat Agree   ■ Strongly Agree   ■ Does not apply

During help sessions and tutorials, did they create an
environment in which you felt comfortable asking...

During help sessions and tutorials, did they help
provide you with a deeper understanding of the...

During help sessions and tutorials, did they
adequately prepare you for tests and assignments?

During help sessions and tutorials, did they encourage
participation?

100%   0%   100%

Figure 1:
Results from the 2020 AST222
TA evaluations.

Sample Teaching Materials

Curriculum Development for Life on Other Worlds (AST251)

Homework questions applied in the course:

1. Which of the following types of planets should it be easiest for the transit method to detect?

   a) Large planets whose orbits are edge-on to our line of sight.

   b) Large planets whose orbits are face-on to our line of sight.

   c) Small planets whose orbits are edge-on to our line of sight.

   d) Small planets whose orbits are face-on to our line of sight.

2. Which properties of a transiting exoplanet can be determined by examining primary transits alone? Assume you also know the mass and radius of the parent star. Check all that apply.

   a) Planetary radius.

   b) Planetary orbital period.

   c) Planetary mass.

   d) Planetary orbital semimajor axis.

   e) Planetary density.

3. Keeping in mind how the radial velocity method works and what it is detecting, which kinds of systems should it find most easily?

   a) Massive planets with small orbital semi-major axes.

   b) Low-mass planets with small orbital semi-major axes.

   c) Massive planets with large orbital semi-major axes.

   d) Low-mass planets with large orbital semi-major axes.