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| **Materials engineering**309-6350 Stores RoadVancouver, BC V6T 1Z4Tel: +1.604.822.4878Fax: +1.604.822.3619Web: http://www.mtrl.ubc.ca |
| ACADEMIC YEAR: 2019W |
| Teaching Assistant Postings |
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**Hours & Pay**

Hours and Rates are established by contract between U.B.C. and the T.A. Union (CUPE 2278).

The majority of Appointments are 2/4 hours per week = 32/64 hours per term, however, actual appointments may vary. ***Exam invigilation is included in the appointment***. Positions are from September 3 to December 31, 2019 for Term One and January 6- April 30, 2020 for Term Two. You must be available during this time.

Stipends are (as of September 1, 2018):

PhD GTA1 $32.53 per hour

MASc GTA2 $31.30 per hour

Marker $14.98 per hour

Departmental offers of appointment will be made to the student, in writing, no later than June 15. Applicants will then have ten days to either accept or decline the offer. Students are members of the Bargaining Unit (CUPE Local 2278) from the time that they are appointed. A ***mandatory*** Teaching Assistant training course is require for ALL new and returning TA’s who have not completed the course.

***"UBC hires on the basis of merit and is committed to employment equity. We encourage all qualified applicants to apply".***

**Table of Contents**

|  |  |  |  |
| --- | --- | --- | --- |
| APSC 278 – Engineering Materials |  |  |  |
| APSC 279 – Engineering Materials Laboratory |  |  |  |
| MECH 221 – Engineering Science IMTRL 201- Technical Communication |  |  |  |
| MTRL 250 – Metallurgical Thermodynamics I |  |  |  |
| MTRL 252 – Pyrometallurgy |  |  |  |
| MTRL 263 – Transport Phenomena I |  |  |  |
| MTRL 264 Transport Phenomena II  |  |  |  |
| MTRL 280 – Materials in Design |  |  |  |
| MTRL 350 – Metallurgical Thermodynamics II |  |  |  |
| MTRL 358 – Hydrometallurgy I |  |  |  |
| MTRL 359 – Hydrometallurgy I Laboratory |  |  |  |
| MTRL 361 – Modelling of Materials Processes |  |  |  |
| MTRL 363 – Transport Phenomena II |  |  |  |
| MTRL 365 – Mechanical Behaviour of Materials |  |  |  |
| MTRL 378 – Phase Transformations |  |  |  |
| MTRL 340 – Structure and Properties of Materials |  |  |  |
| MTRL 381 – Structure and Properties Laboratory |  |  |  |
| MTRL 382 – CeramicsMTRL 392 –Engineering Communication |  |  |  |
| MTRL 394 – Polymer and Polymer Matrix CompositesMTRL 398- Engineering Written Communication |  |  |  |
| MTRL 442- Coatings and Surface Modifications |  |  |  |
| MTRL 451 – Microstructural Analysis Laboratory |  |  |  |
| MTRL 455 - Economic Aspects of Materials Engineering |  |  |  |
| MTRL 456 – Environmental Degradation of Materials |  |  |  |
| MTRL 458 – Hydrometallurgy II |  |  |  |
| MTRL 460 - Monitoring and Optimization of Materials Processing |  |  |  |
| MTRL 471 – Nanofibre Technology |  |  |  |
| MTRL 472 - Welding and Joining of Materials |  |  |  |
| MTRL 475 – Microstructure Modeling |  |  |  |
| MTRL 478 – Electronic Materials |  |  |  |
| MTRL 485 – Failure of Materials  |  |  |  |
| MTRL 494- Composite Materials |  |  |  |
| MTRL 495 – Biomaterials |  |  |  |
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**APSC 278 – Engineering Materials**

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| ACADEMIC YEAR:  |
| TERM: 1, 2 |
| COURSE: APSC 278 |
| INSTRUCTOR: Term 1: Steve Cockcroft Term 2: Gabrielle Lam |
| TA HOURS PER WEEK1: **Term 1:** 3 positions – ½ TA – 64 hours  **Term 2:** 3 positions – ¼ TA – 32 hours  ***Note:*** *TA’s may apply to do term 1, or term 2, or both.* |
|  |
| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🞎
 |
| * Aid students in assignments/problem sets 🞎
 |
| Laboratories |
| * Oral instruction
 |
| * Lab set-up
 |
| * Running labs
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
 |
| * 🞎
 |
|  |
| Other duties (specify): |
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| ***NOTE: duties have changed from past years:*** |
| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**APSC 279 – Engineering Materials Laboratory**

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| ACADEMIC YEAR:  |
| TERM: 1, 2 |
| COURSE: APSC 279 |
| INSTRUCTOR: Term One:Bé Wassink (coordinator) Term Two: Be Wassink  |
| TA HOURS PER WEEK1: Term 1: 3 positions –3 x ¼ TA positions (**note below**) Term 2: 4 positions – 2 x 1/2 TA + 2 x ¼ TA positions (**note below**) *Note: TA’s may apply to do term 1, or term 2, or both.* |
|  |
| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🞎
 |
| * Aid students in assignments/problem sets 🞎
 |
| Laboratories |
| * Oral instruction 🗹
 |
| * Lab set-up 🗹
 |
| * Running labs 🗹
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🞎
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
 |
| * Other: midterm exam marking (APSC 278)
 |
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| Other duties (specify): **Please see lab schedule – 6 times a week** |
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| ***NOTE: duties have changed from past years:***TA’s will be running labs as outlined in the duties above, A ¼ TA will have 4 hours per week, every other week over 10 weeks. A ½ TA will have 8 hours per week, every other week over 10 weeks. In addition, Total APSC 279 lab time not to exceed the specified position maximums (32 hr for a ¼ TA; 64 hr for a ½ TA).NOTE: NO SWITCHING LABS UNLESS PRIOR APPROVAL FROM BE WASSINK |
| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MECH 221/223 – Engineering Science I**

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| ACADEMIC YEAR:  |
| TERM: 1 and 2 |
| COURSE: MECH 221 (term 1) and MECH 223 (term 2) |
| INSTRUCTOR: Jon Nakane |
| TA HOURS PER WEEK1: 4 positions – ¼ TA each 32 hr– Term 1 & Term 2 |
|  |
| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🞎
 |
| * Aid students in assignments/problem sets 🞎
 |
| Laboratories |
| * Oral instruction 🗹
 |
| * Lab set-up 🗹
 |
| * Running labs 🗹
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
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| Other duties (specify): |
| Possibly maintain website including monitoring the bulletin board and helping with any questions on the course content and case study problems. |
| ***Note:*** *duties may differ somewhat from those listed here as a new instructor takes over the course.* |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 250 – Metallurgical Thermodynamics I**

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| ACADEMIC YEAR:  |
| TERM: 1 |
| COURSE: MTRL 250 |
| INSTRUCTOR: Ed Asselin |
| TA HOURS PER WEEK1: 1 position – ½ TA – 4 hours a week |
|  |
| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🗹
 |
| * Aid students in assignments/problem sets 🗹
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
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| Other duties (specify): |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 252 – Pyrometallurgy**

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| ACADEMIC YEAR:  |
| TERM: 1 |
| COURSE: MTRL 252 |
| INSTRUCTOR: TAFAGHODIKHAJAVI, LEILI |
| TA HOURS PER WEEK1: 1 position – ½ TA – 4 hours a week |
|  |
| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🗹
 |
| * Aid students in assignments/problem sets 🗹
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
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| Other duties (specify): |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 263 – Transport Phenomena I**

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| ACADEMIC YEAR:  |
| TERM: 2 |
| COURSE: MTRL 263 |
| INSTRUCTOR: Wenying Liu |
| TA HOURS PER WEEK1: 1 position – ½ TA – 4 hours per week |
|  |
| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🗹
 |
| * Aid students in assignments/problem sets 🗹
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
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| Other duties (specify): |
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| A positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 264 – Transport Phenomena II**

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| ACADEMIC YEAR:  |
| TERM: 2 |
| COURSE: MTRL 264 |
| INSTRUCTOR: LIU, WENYING |
| TA HOURS PER WEEK1: 1 position – ½ TA – 4 hours per week |
|  |
| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🗹
 |
| * Aid students in assignments/problem sets 🗹
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
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| Other duties (specify): |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 280 – Materials in Design**

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| ACADEMIC YEAR:  |
| TERM: 2 |
| COURSE: MTRL 280 |
| INSTRUCTOR: Chad Sinclair |
| TA HOURS PER WEEK1: 3 positions – 84 hours each TA – 6 hours each per week |
|  |
| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🞎
 |
| * Aid students in assignments/problem sets 🗹
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
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| Other duties (specify): |
| Supervise group design projects, mark mid-term reports, final reports, presentations |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 350 – Metallurgical Thermodynamics II**

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| ACADEMIC YEAR |
| TERM: 1 |
| COURSE: MTRL 350 |
| INSTRUCTOR: Wenying Liu |
| TA HOURS PER WEEK1: 1 position – 2/3 TA – 6 hours per week |
|  |
| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🗹
 |
| * Aid students in assignments/problem sets 🞎
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
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| Other duties (specify): |
| Supervise group design projects, mark midterm reports, final reports, presentations |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 358 – Hydrometallurgy I**

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| ACADEMIC YEAR:  |
| TERM: 1 |
| COURSE: MTRL 358 |
| INSTRUCTOR: Bé Wassink |
| TA HOURS PER WEEK1: 1 position – ¼ TA – 2 hours per week |
|  |
| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🞎
 |
| * Aid students in assignments/problem sets 🗹
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
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| Other duties (specify): |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 359 – Hydrometallurgy I Laboratory**

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| ACADEMIC YEAR:  |
| TERM: 1 |
| COURSE: MTRL 359 |
| INSTRUCTOR: Bé Wassink |
| TA HOURS PER WEEK1: 5 positions – 4 ½ TA – 4 hours per week and 1 ¼ TA 2 hours per week |
|  |
| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🞎
 |
| * Aid students in assignments/problem sets 🞎
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| * Aid students in writing up lab reports 🗹
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
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| Other duties (specify): |
| Possibly assist in set-up of lab. |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 361 – Modelling of Materials Processes**

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| ACADEMIC YEAR:  |
| TERM: 1 |
| COURSE: MTRL 361 |
| INSTRUCTOR: David Dixon |
| TA HOURS PER WEEK1: 2 positions – ½ TA each – 4 hours per week each |
|  |
| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🗹
 |
| * Aid students in assignments/problem sets 🗹
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
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| Other duties (specify): |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 363 – Transport Phenomena II**

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| ACADEMIC YEAR:  |
| TERM: 1 |
| COURSE: MTRL 363 |
| INSTRUCTOR: Guangrui Xia |
| TA HOURS PER WEEK1: 1 position – ½ TA – 4 hours per week |
|  |
| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🗹
 |
| * Aid students in assignments/problem sets 🗹
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
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| Other duties (specify): Grading of problem sets. |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 365 – Mechanical Behaviour of Materials**

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| ACADEMIC YEAR:  |
| TERM: 2 |
| COURSE: MTRL 365 |
| INSTRUCTOR: Chad Sinclair |
| TA HOURS PER WEEK1: *1 position – 1/2TA – 4 hours per week* |
|  |
| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🗹
 |
| * Demonstrate problem sets 🞎
 |
| * Aid students in assignments/problem sets 🗹
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🗹
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| Other duties (specify): |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 378 – Phase Transformations**

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| ACADEMIC YEAR:  |
| TERM: 2 |
| COURSE: MTRL 378 |
| INSTRUCTOR: Matthias Militzer |
| TA HOURS PER WEEK1: 1 position – 1 TA – 8 hours per week |
|  |
| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🗹
 |
| * Demonstrate problem sets 🗹
 |
| * Aid students in assignments/problem sets 🗹
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
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| Other duties (specify): |
| Preparation of tutorial task related to austenite decomposition. |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 340 – Manufacturing in Materials Engineering – MTRL & IGEN Students**

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| ACADEMIC YEAR:  |
| TERM: 3 |
| COURSE: MTRL 340 |
| INSTRUCTOR: *Steve Cockcroft*  |
| TA HOURS PER WEEK1: 3 positions – ½ TA (4 hours/wk))  |
|  |
| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🞎
 |
| * Aid students in assignments/problem sets 🗹
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| **Monitoring and Optimization of Materials Processing** |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
 |
|  |
| Other duties (specify): |
| Maintain website including monitoring the bulletin board and helping with any questions on the course content and case study problems. |
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| ***Note:******This is an official TA position.***  *.* |
| This class may contain up to 120 students |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents a workload of 2, 4, and 8 hours a week for 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 381 – Structure and Properties Laboratory**

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| ACADEMIC YEAR:  |
| TERM: 2 |
| COURSE: MTRL 381 |
| INSTRUCTOR: Jon Nakane |
| TA HOURS PER WEEK1: 2 *positions – ½ TA – 4 hours per week*  |
|  |
| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🞎
 |
| * Aid students in assignments/problem sets 🞎
 |
| Laboratories |
| * Oral instruction 🗹
 |
| * Equipment demonstration and training during labs 🗹
 |
| * Running labs 🗹
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
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| Other duties (specify): |
| Maintain website including monitoring the bulletin board and helping with any questions on the course content and case study problems. |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents a workload of 2, 4, and 8 hours a week for 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 382 – Ceramics**

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| ACADEMIC YEAR:  |
| TERM: 2 |
| COURSE: MTRL 382 LAB |
| INSTRUCTOR: Tom Troczynski |
| TA HOURS PER WEEK1: 3 positions –2 3/4 TA each – 6 hours each week, 1 ½ TA 4 hours per week |
|  |
| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🞎
 |
| * Aid students in assignments/problem sets 🞎
 |
| Laboratories |
| * Oral instruction 🗹
 |
| * Lab set-up 🗹
 |
| * Running labs 🗹
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
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| Other duties (specify): |
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| Marking lab reports |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 392 – Engineering Technical Communication**

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| ACADEMIC YEAR:  |
| TERM: 2 |
| COURSE: MTRL 392 |
| INSTRUCTOR: ROGALSKI, PAMELA |
| TA HOURS PER WEEK1: 1 position – 1/4 TA – 2 hours per week |
|  |
| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction √
 |
| * Demonstrate problem sets √
 |
| * Aid students in assignments/problem sets √
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
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| Other duties (specify): Students must have a strong background in written and verbal communication  |
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| Marking lab reports |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 394 – Polymer and Polymer Matrix Composites**

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| ACADEMIC YEAR:  |
| TERM: 2 |
| COURSE: MTRL 394 |
| INSTRUCTOR: MOBUCHON, CHRISTOPHE |
| TA HOURS PER WEEK1: 1 position – 3/4 TA – 6 hours per week |
|  |
| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction √
 |
| * Demonstrate problem sets √
 |
| * Aid students in assignments/problem sets √
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
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| Other duties (specify): |
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| Marking lab reports |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 398 – Engineering Written Communication**

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| ACADEMIC YEAR:  |
| TERM: 2 |
| COURSE: MTRL 398 |
| INSTRUCTOR: ROGALSKI, PAMELA |
| TA HOURS PER WEEK1: 1 position – 1/4 TA – 2 hours per week |
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| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction √
 |
| * Demonstrate problem sets √
 |
| * Aid students in assignments/problem sets √
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
 |
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| Other duties (specify): Students must have a strong background in written and verbal communication  |
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| Marking lab reports |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 442 – Coatings and Surface Modification**

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| ACADEMIC YEAR:  |
| TERM: 1 |
| COURSE: MTRL 442 |
| INSTRUCTOR: Tom Troczynski |
| TA HOURS PER WEEK1: 1 position – 1/2 TA – 4 hours per week |
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| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🗹
 |
| * Aid students in assignments/problem sets 🗹
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
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| Other duties (specify): |
| Supervise group design projects, mark midterm reports, final reports, presentations |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 451 – Microstructural Analysis Laboratory**

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| ACADEMIC YEAR:  |
| TERM: 1 |
| COURSE: MTRL 451 |
| INSTRUCTOR: Rizhi Wang |
| TA HOURS PER WEEK1: 2 positions – ½ TA each – 4 hours per week each |
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| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🞎
 |
| * Aid students in assignments/problem sets 🞎
 |
| Laboratories |
| * Oral instruction 🗹
 |
| * Lab set-up 🗹
 |
| * Running labs 🗹
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🞎
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
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| Other duties (specify): |
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| A responsible person with training in Materials Engineering. Must have hands-on skills in X-ray powder diffraction and analysis; Scanning electron microscopes; Energy Dispersive Spectroscopy analysis (EDS); and Optical microscopes. Must have general knowledge on metals, ceramics, polymers, etc. |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 455– Economic Aspects of Materials Engineering**

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| ACADEMIC YEAR:  |
| TERM: 1 |
| COURSE: MTRL 455 |
| INSTRUCTOR: David Dreisinger |
| TA HOURS PER WEEK1: 1 position – 1/2 TA – 4 hours per week each |
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| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🞎
 |
| * Aid students in assignments/problem sets 🞎
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🗹
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| Other duties (specify): |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 456 – Environmental Degradation of Materials**

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| ACADEMIC YEAR:  |
| TERM: 2 |
| COURSE: MTRL 456  |
| INSTRUCTOR: TBA |
| TA HOURS PER WEEK1: 1 position – ½ TA – 4 hours per week |
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| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🗹
 |
| * Aid students in assignments/problem sets 🗹
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
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| Other duties (specify): |
| Supervise group design projects, mark midterm reports, final reports, presentations |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 458 – Hydrometallurgy II**

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| ACADEMIC YEAR:  |
| TERM: 2 |
| COURSE: MTRL 458 |
| INSTRUCTOR: Edouard Asselin |
| TA HOURS PER WEEK1: 1 position – ¼ TA – 2 hours per week |
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| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🞎
 |
| * Aid students in assignments/problem sets 🞎
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
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| Other duties (specify): |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 460 – Monitoring and Optimization of Materials Processing**

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| ACADEMIC YEAR:  |
| TERM: 1 |
| COURSE: MTRL 460 |
| INSTRUCTOR: Tom Troczynski |
| TA HOURS PER WEEK1: 1 position – ½ TA – 4 hours per week |
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| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🞎
 |
| * Aid students in assignments/problem sets 🗹
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
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| Other duties (specify): |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 471 – Nanofibre Technology**

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| ACADEMIC YEAR:  |
| TERM: 2 |
| COURSE: MTRL 471 |
| INSTRUCTOR: BAHI, ARDESHIR |
| TA HOURS PER WEEK1: 2 position – 1 1/2 TA – 4 hours per week, 1 ¼ TA 2 hours per week |
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| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🗹
 |
| * Aid students in assignments/problem sets 🗹
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| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🗹
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
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| Other duties (specify): |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 472 – Welding and Joining of Metals**

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| ACADEMIC YEAR:  |
| TERM: 1 |
| COURSE: MTRL 472 |
| INSTRUCTOR: TBA |
| TA HOURS PER WEEK1: 1 position – 3/4 TA –6 hours per week |
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| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🗹
 |
| * Demonstrate problem sets 🗹
 |
| * Aid students in assignments/problem sets 🗹
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🗹
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| Other duties (specify): |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 475 – Microstructure Modeling**

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| ACADEMIC YEAR:  |
| TERM: 2 |
| COURSE: MTRL 475 |
| INSTRUCTOR: Matthias Militzer |
| TA HOURS PER WEEK1: 1 position – ½ TA – 4 hours per week |
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| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🗹
 |
| * Demonstrate problem sets 🗹
 |
| * Aid students in assignments/problem sets 🗹
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🗹
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| Other duties (specify): |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 478 – Electronic Materials**

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| ACADEMIC YEAR:  |
| TERM: 2 |
| COURSE: MTRL 478 |
| INSTRUCTOR: Maggie Xia |
| TA HOURS PER WEEK1: 1 position – 1/4 TA – 2 hours per week |
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| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🗹
 |
| * Demonstrate problem sets 🞎
 |
| * Aid students in assignments/problem sets 🗹
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
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| Other duties (specify): |
| The TA will conduct a laboratory tour in AMPEL and give associated oral instructions (e.g. regarding Molecular Beam Epitaxy); these tasks are equivalent to those of tutorials even though there is no tutorial per se associated with the course. |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 485 – Failure of Materials**

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| ACADEMIC YEAR:  |
| TERM: 1 |
| COURSE: MTRL 485 |
| INSTRUCTOR: Göran Fernlund |
| TA HOURS PER WEEK1: 1 position – ½ TA – 4 hours per week |
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| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🞎
 |
| * Aid students in assignments/problem sets 🗹
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🗹
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| Other duties (specify): |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 486 – Nondestructive Evaluation**

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| ACADEMIC YEAR:  |
| TERM: 1 |
| COURSE: MTRL 486 |
| INSTRUCTOR: AKHTAR, AINUL |
| TA HOURS PER WEEK1: 1 position – ¼ TA – 2 hours per week |
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| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🞎
 |
| * Aid students in assignments/problem sets 🗹
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🗹
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| Other duties (specify): |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 494 – Composite Materials**

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| ACADEMIC YEAR: |
| TERM: 2 |
| COURSE: MTRL 494 |
| INSTRUCTOR: Anoush Poursartip |
| TA HOURS PER WEEK1: 1 position – ½ TA – 4 hours per week |
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| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🞎
 |
| * Aid students in assignments/problem sets 🗹
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
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| Other duties (specify): |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |

**MTRL 495 – Biomaterials**

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| ACADEMIC YEAR:  |
| TERM: 2 |
| COURSE: MTRL 495 |
| INSTRUCTOR: Rizhi Wang |
| TA HOURS PER WEEK1: 1 position – ½ TA – 4 hours per week |
|  |
| DUTIES (check appropriate boxes) |
| Tutorials |
| * Oral instruction 🞎
 |
| * Demonstrate problem sets 🗹
 |
| * Aid students in assignments/problem sets 🗹
 |
| Laboratories |
| * Oral instruction 🞎
 |
| * Lab set-up 🞎
 |
| * Running labs 🞎
 |
| Marking |
| * Subjective marking of assignments, midterms, exams, etc. 🗹
 |
| * Objective2 (“key-type”) marking of assignments, midterms, exams, etc. 🞎
 |
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| Other duties (specify): |
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| Marking lab reports |
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| 1) TA positions are normally ¼, ½, or 1 load, which represents an *average* workload of 2, 4, and 8 hours a week, nominally over 16 weeks, respectively.2) If the only task the TA does is objective marking, the salary is substantially lower than for a regular TA. |