

Employer Needs Survey Form

Date: ___7/12/16_____

Institution: ___University of Arkansas_____

Return this survey by email to: ___shew@uark.edu_____ **by date:** ___7/30/16_____

Proposed Degree Program: ___PhD in Physics with Neuroscience Concentration_____

Brief description of program:

The two aims of this PhD program will be to 1) train graduate students in many of the traditional strengths of physics (statistical physics, electrodynamics, rigorous mathematical methods, analytical problem solving, biophysics) and 2) establish a solid knowledge-base in experimental and computational neuroscience.

Employer: ___Imperial College London_____

Type of company: ___Academic Institution_____

Contact Person: ___Thomas Knopfel_____

Position Title: ___Professor_____

Email: ___tknopfel@knopfel-lab.net_____

Telephone number: _____

1. List job titles with your company that require employees to have the knowledge and skills obtained from the proposed degree program: ___Postdoctoral Fellow_____
2. List the degree required for each job title listed in #1:
___PhD_____
3. Indicate the certification/licensure required for each job title listed in #1:
___n/a_____
4. How many positions do you currently have for each job title listed in #1?
___~ 20 at any given time_____
5. How many position openings do you currently have for each job title listed in #1?
___1_____
6. How many position openings will you have the next 2–5 years for each job title listed in #1?
___College: ~ 20, Own lab ~ 3)_____
7. What is the annual salary for each position listed in #4 & #5?
___Currently £35,640 to £42,830 per annum_____
8. If no openings now, when do you anticipate having openings for the positions listed in #1?
___opening now_____

9. Would you give hiring preference to applicants with the proposed degree?
 yes _____
10. Indicate the number of employees who would benefit from enrolling in selected coursework in the proposed degree program? n/a _____
 If yes, would you provide tuition assistance? n/a _____
11. Would it be helpful for your employees if the courses were offered online/distance technology, evenings or weekends? n/a _____ Indicate your preference: n/a _____
12. Indicate the type of support your company will provide for the proposed degree program, such as, program start-up funds, provide an internship site, part-time faculty, tuition reimbursement, employee release time, or equipment: n/a _____
13. Will you or a co-worker serve on the institution's program advisory committee? (provide name of employee email)
 n/a _____
14. Indicate the skills individuals would need for employment in the positions listed in #1:
- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Interpersonal communications | <input type="checkbox"/> Supervision/Management | <input type="checkbox"/> Budgeting |
| <input checked="" type="checkbox"/> Written/oral communications | <input type="checkbox"/> Leadership/initiative | <input checked="" type="checkbox"/> Data analysis |
| <input checked="" type="checkbox"/> Team work | <input type="checkbox"/> Planning/Organizing | <input type="checkbox"/> Public Speaking |
| <input checked="" type="checkbox"/> Independent worker | <input type="checkbox"/> Conflict resolution | <input type="checkbox"/> Marketing |
| <input checked="" type="checkbox"/> Analytical reasoning | <input checked="" type="checkbox"/> Problem Solver | <input type="checkbox"/> Teacher/Trainer |
| <input checked="" type="checkbox"/> Computer programming | <input checked="" type="checkbox"/> Computer applications | <input checked="" type="checkbox"/> PowerPoint Presentations |
| <input type="checkbox"/> Foreign Language (specify) _____ | | |
| <input type="checkbox"/> Other skills not listed (identify):
knowledge in project relevant fields (experimental and/or theoretical) | | |
15. How will this proposed degree program benefit your local community, the state, region or nation?
 n/a
16. Provide any additional comments about the proposed degree program.

Brain Sciences will likely become a mayor endeavor as understanding the human brain will be a high priority endeavor for the coming generation of scientists (second to solving the energy problem). Many highly skilled workers will be needed for this.

Employer Needs Survey Form

Date: ___7/12/16_____

Institution: ___University of Arkansas_____

Return this survey by email to: ___shew@uark.edu_____ **by date:** ___7/30/16_____

Proposed Degree Program: ___ PhD in Physics with Neuroscience Concentration _____

Brief description of program:

The two aims of this PhD program will be to 1) train graduate students in many of the traditional strengths of physics (statistical physics, electrodynamics, rigorous mathematical methods, analytical problem solving, biophysics) and 2) establish a solid knowledge-base in experimental and computational neuroscience.

Employer: ___ Washington University, St. Louis _____

Type of company: ___Academic Institution_____

Contact Person: ___Ralf Wessel_____

Position Title: ___Professor_____

Email: ___rw@physics.wustl.edu_____

Telephone number: _____

17. List job titles with your company that require employees to have the knowledge and skills obtained from the proposed degree program: ___ Postdoctoral Fellow _____

18. List the degree required for each job title listed in #1:
___ PhD _____

19. Indicate the certification/licensure required for each job title listed in #1:
___ n/a _____

20. How many positions do you currently have for each job title listed in #1?
___ 1 per lab _____

21. How many position openings do you currently have for each job title listed in #1?
___ 0 _____

22. How many position openings will you have the next 2–5 years for each job title listed in #1?
___ 1 _____

23. What is the annual salary for each position listed in #4 & #5?
___ \$45k _____

24. If no openings now, when do you anticipate having openings for the positions listed in #1?
___ 2018 _____

25. Would you give hiring preference to applicants with the proposed degree?
 yes _____
26. Indicate the number of employees who would benefit from enrolling in selected coursework in the proposed degree program? n/a
 If yes, would you provide tuition assistance? n/a
27. Would it be helpful for your employees if the courses were offered online/distance technology, evenings or weekends? n/a Indicate your preference: n/a
28. Indicate the type of support your company will provide for the proposed degree program, such as, program start-up funds, provide an internship site, part-time faculty, tuition reimbursement, employee release time, or equipment: n/a
29. Will you or a co-worker serve on the institution's program advisory committee? (provide name of employee email)
 n/a
30. Indicate the skills individuals would need for employment in the positions listed in #1:

- | | | |
|--|---|---|
| <input checked="" type="checkbox"/> Interpersonal communications | <input type="checkbox"/> Supervision/Management | <input type="checkbox"/> Budgeting |
| <input checked="" type="checkbox"/> Written/oral communications | <input checked="" type="checkbox"/> Leadership/initiative | <input checked="" type="checkbox"/> Data analysis |
| <input checked="" type="checkbox"/> Team work | <input checked="" type="checkbox"/> Planning/Organizing | <input checked="" type="checkbox"/> Public Speaking |
| <input checked="" type="checkbox"/> Independent worker | <input type="checkbox"/> Conflict resolution | <input type="checkbox"/> Marketing |
| <input checked="" type="checkbox"/> Analytical reasoning | <input type="checkbox"/> Problem Solver | <input type="checkbox"/> Teacher/Trainer |
| <input checked="" type="checkbox"/> Computer programming | <input type="checkbox"/> Computer applications | <input checked="" type="checkbox"/> PowerPoint |

Presentations

- Foreign Language (specify) _____
- Other skills not listed (identify) _____

31. How will this proposed degree program benefit your local community, the state, region or nation?
 n/a
32. Provide any additional comments about the proposed degree program.
 if you have any additional comments, please share

Employer Needs Survey Form

Date: 06/06/2016

Institution: University of Arkansas

Return this survey by email to: yongwang@uark.edu **by date:** July 1st, 2016

(Institution provide email address above)

Proposed Degree Program: Ph.D. in physics with a concentration in biophysics

Brief description of program:

We are proposing an Interdisciplinary Physics Ph.D. degree with a concentration in Biophysics. The requirement for this degree will be very similar to our regular physics Ph.D. degree except that some of the required courses will be replaced with courses that focus more on biophysics and related topics. The students with this degree / concentration work with faculty involved in biophysics research during their Ph.D., and will be well-prepared with skills for the needs in biophysical research in both academic and industrial settings.

Employer: University of British Columbia

Type of company: University

Contact Person: Isaac Li

Position Title: Assistant Professor

Email: isaac.li@ubc.ca

Telephone number: 250-807-8069

1. List job titles with your company that require employees to have the knowledge and skills obtained from the proposed degree program: postdoc, research scientist, technician
2. List the degree required for each job title listed in #1: PhD, MSc, BSc
3. Indicate the certification/licensure required for each job title listed in #1: NA
4. How many positions do you currently have for each job title listed in #1? 0
5. How many position openings do you currently have for each job title listed in #1? 0
6. How many position openings will you have the next 2–5 years for each job title listed in #1? 1-2
7. What is the annual salary for each position listed in #4 & #5? \$30k, \$30k, \$25k
8. If no openings now, when do you anticipate having openings for the positions listed in #1? 2-5 years
9. Would you give hiring preference to applicants with the proposed degree? yes
10. Indicate the number of employees who would benefit from enrolling in selected coursework in the proposed degree program? 1
If yes, would you provide tuition assistance? no
11. Would it be helpful for your employees if the courses were offered online/distance technology, evenings or weekends? yes Indicate your preference: no preference
12. Indicate the type of support your company will provide for the proposed degree program, such as, program start-up funds, provide an internship site, part-time faculty, tuition reimbursement, employee

release time, or equipment: startup fund

13. Will you or a co-worker serve on the institution's program advisory committee? (provide name of employee email)

Isaac Li – isaac.li@ubc.ca

14. Indicate the skills individuals would need for employment in the positions listed in #1:

<input checked="" type="checkbox"/> Interpersonal communications	<input type="checkbox"/> Supervision/Management	<input checked="" type="checkbox"/> Budgeting
<input checked="" type="checkbox"/> Written/oral communications	<input type="checkbox"/> Leadership/initiative	<input checked="" type="checkbox"/> Data analysis
<input type="checkbox"/> Team work	<input checked="" type="checkbox"/> Planning/Organizing	<input checked="" type="checkbox"/> Public Speaking
<input checked="" type="checkbox"/> Independent worker	<input type="checkbox"/> Conflict resolution	<input type="checkbox"/> Marketing
<input checked="" type="checkbox"/> Analytical reasoning	<input checked="" type="checkbox"/> Problem Solver	<input type="checkbox"/> Teacher/Trainer
<input checked="" type="checkbox"/> Computer programming	<input checked="" type="checkbox"/> Computer applications	<input checked="" type="checkbox"/> PowerPoint

Presentations

Foreign Language (specify) _____
 Other skills not listed (identify) _____

15. How will this proposed degree program benefit your local community, the state, region or nation?
Biophysics will benefit startup high-tech industries in this region

16. Provide any additional comments about the proposed degree program.
Great program, should definitely support it!

Employer Needs Survey Form

Date: 06/06/2016

Institution: University of Arkansas

Return this survey by email to: yongwang@uark.edu **by date:** July 1st, 2016

(Institution provide email address above)

Proposed Degree Program: Ph.D. in physics with a concentration in biophysics

Brief description of program:

We are proposing an Interdisciplinary Physics Ph.D. degree with a concentration in Biophysics. The requirement for this degree will be very similar to our regular physics Ph.D. degree except that some of the required courses will be replaced with courses that focus more on biophysics and related topics. The students with this degree / concentration work with faculty involved in biophysics research during their Ph.D., and will be well-prepared with skills for the needs in biophysical research in both academic and industrial settings.

Employer: University of Toronto

Type of company: Academic

Contact Person: Joshua Milstein

Position Title: Professor

Email: josh.milstein@utoronto.ca

Telephone number: 905-828-5425

17. List job titles with your company that require employees to have the knowledge and skills obtained from the proposed degree program: Graduate student, Postdoc, Technician
18. List the degree required for each job title listed in #1: B.S., Ph.D., M.Sc. or Ph.D.
19. Indicate the certification/licensure required for each job title listed in #1: None
20. How many positions do you currently have for each job title listed in #1? 1,0,0
21. How many position openings do you currently have for each job title listed in #1? Sorry, I'm not sure what this means
22. How many position openings will you have the next 2-5 years for each job title listed in #1? 3, 2, 0
23. What is the annual salary for each position listed in #4 & #5? \$25k, \$45k, ~\$40k

24. If no openings now, when do you anticipate having openings for the positions listed in #1? _____ In the next few years _____
25. Would you give hiring preference to applicants with the proposed degree? ___A degree as suggested would help the candidate. _____
26. Indicate the number of employees who would benefit from enrolling in selected coursework in the proposed degree program? _____? _____
If yes, would you provide tuition assistance? ___No_____
27. Would it be helpful for your employees if the courses were offered online/distance technology, evenings or weekends? ___No_____ Indicate your preference: _____
28. Indicate the type of support your company will provide for the proposed degree program, such as, program start-up funds, provide an internship site, part-time faculty, tuition reimbursement, employee release time, or equipment: ___None_____
29. Will you or a co-worker serve on the institution's program advisory committee? (provide name of employee email)
_____No_____
30. Indicate the skills individuals would need for employment in the positions listed in #1:
- | | | |
|--|--|---|
| <input checked="" type="checkbox"/> Interpersonal communications | <input checked="" type="checkbox"/> Supervision/Management | <input checked="" type="checkbox"/> Budgeting |
| <input checked="" type="checkbox"/> Written/oral communications | <input checked="" type="checkbox"/> Leadership/initiative | <input checked="" type="checkbox"/> Data analysis |
| <input checked="" type="checkbox"/> Team work | <input checked="" type="checkbox"/> Planning/Organizing | <input checked="" type="checkbox"/> Public Speaking |
| <input checked="" type="checkbox"/> Independent worker | <input checked="" type="checkbox"/> Conflict resolution | <input type="checkbox"/> Marketing |
| <input checked="" type="checkbox"/> Analytical reasoning | <input checked="" type="checkbox"/> Problem Solver | <input checked="" type="checkbox"/> Teacher/Trainer |
| <input checked="" type="checkbox"/> Computer programming | <input checked="" type="checkbox"/> Computer applications | <input checked="" type="checkbox"/> PowerPoint |
- Presentations
 _____ Foreign Language (specify) _____
 _____ Other skills not listed (identify) _____
31. How will this proposed degree program benefit your local community, the state, region or nation?
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32. Provide any additional comments about the proposed degree program.
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Employer Needs Survey Form

Date: 06/06/2016

Institution: University of Arkansas

Return this survey by email to: yongwang@uark.edu **by date:** July 1st, 2016

(Institution provide email address above)

Proposed Degree Program: Ph.D. in physics with a concentration in biophysics

Brief description of program:

We are proposing an Interdisciplinary Physics Ph.D. degree with a concentration in Biophysics. The requirement for this degree will be very similar to our regular physics Ph.D. degree except that some of the required courses will be replaced with courses that focus more on biophysics and related topics. The students with this degree / concentration work with faculty involved in biophysics research during their Ph.D., and will be well-prepared with skills for the needs in biophysical research in both academic and industrial settings.

Employer: University of Illinois, Urbana-Champaign

Type of company: University

Contact Person: Paul R. Selvin

Position Title: Professor

Email: selvin@illinois.edu

Telephone number: 217-244-3371

33. List job titles with your company that require employees to have the knowledge and skills obtained from the proposed degree program: Graduate students and post-docs
34. List the degree required for each job title listed in #1: B.S. and Ph.D,
respectively _____
35. Indicate the certification/licensure required for each job title listed in #1:

36. How many positions do you currently have for each job title listed in #1? _____ in my own lab,
there are approximately 10 people. There are about 6 professors in my department _____
37. How many position openings do you currently have for each job title listed in #1? About 3

38. How many position openings will you have the next 2–5 years for each job title listed in #1? About 10

39. What is the annual salary for each position listed in #4 & #5? _____ about \$25k and \$48k

40. If no openings now, when do you anticipate having openings for the positions listed in #1?
 _____ whenever someone graduates. There are approximately 2 people per year graduating

41. Would you give hiring preference to applicants with the proposed degree?
 _____ yes _____
42. Indicate the number of employees who would benefit from enrolling in selected coursework in the proposed degree program? ____ about 10 in my lab, roughly 40-50 in the department as a whole

 If yes, would you provide tuition assistance? __yes_____
43. Would it be helpful for your employees if the courses were offered online/distance technology, evenings or weekends? no _____ Indicate your preference:

44. Indicate the type of support your company will provide for the proposed degree program, such as, program start-up funds, provide an internship site, part-time faculty, tuition reimbursement, employee release time, or equipment: _none; the course work would have to be at U of Illinois.

45. Will you or a co-worker serve on the institution's program advisory committee? (provide name of employee email)
 _____ Maybe _____
46. Indicate the skills individuals would need for employment in the positions listed in #1:
- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Interpersonal communications | <input type="checkbox"/> Supervision/Management | <input type="checkbox"/> Budgeting |
| <input checked="" type="checkbox"/> Written/oral communications | <input checked="" type="checkbox"/> Leadership/initiative | <input type="checkbox"/> Data analysis |
| <input checked="" type="checkbox"/> Team work | <input checked="" type="checkbox"/> Planning/Organizing | <input type="checkbox"/> Public Speaking |
| <input checked="" type="checkbox"/> Independent worker | <input type="checkbox"/> Conflict resolution | <input type="checkbox"/> Marketing |
| <input checked="" type="checkbox"/> Analytical reasoning | <input checked="" type="checkbox"/> Problem Solver | <input checked="" type="checkbox"/> Teacher/Trainer |
| <input checked="" type="checkbox"/> Computer programming | <input type="checkbox"/> Computer applications | <input checked="" type="checkbox"/> PowerPoint Presentations |
| ____ Foreign Language (specify) _____ | | |
| ____ Other skills not listed (identify) _____ | | |
47. How will this proposed degree program benefit your local community, the state, region or nation? Provide necessary skills.
48. Provide any additional comments about the proposed degree program.

Employer Needs Survey Form

Date: 06/06/2016

Institution: University of Arkansas

Return this survey by email to: yongwang@uark.edu **by date:** July 1st, 2016

(Institution provide email address above)

Proposed Degree Program: Ph.D. in physics with a concentration in biophysics

Brief description of program:

We are proposing an Interdisciplinary Physics Ph.D. degree with a concentration in Biophysics. The requirement for this degree will be very similar to our regular physics Ph.D. degree except that some of the required courses will be replaced with courses that focus more on biophysics and related topics. The students with this degree / concentration work with faculty involved in biophysics research during their Ph.D., and will be well-prepared with skills for the needs in biophysical research in both academic and industrial settings.

Employer: University of Cincinnati College of Medicine

Type of company: Education

Contact Person: Jiajie Diao

Position Title: assistant professor

Email: jiajie.diao@uc.edu

Telephone number: 513-558-0234

49. List job titles with your company that require employees to have the knowledge and skills obtained from the proposed degree program:

Postdoc

50. List the degree required for each job title listed in #1:

PhD

51. Indicate the certification/licensure required for each job title listed in #1:

52. How many positions do you currently have for each job title listed in #1?

>100

53. How many position openings do you currently have for each job title listed in #1?

>20

54. How many position openings will you have the next 2–5 years for each job title listed in #1?

>100

55. What is the annual salary for each position listed in #4 & #5? >\$47000 starting from Dec. 2016

56. If no openings now, when do you anticipate having openings for the positions listed in #1?

57. Would you give hiring preference to applicants with the proposed degree?
__Yes_____
58. Indicate the number of employees who would benefit from enrolling in selected coursework in the proposed degree program? __>20_____
- If yes, would you provide tuition assistance? __yes_____
59. Would it be helpful for your employees if the courses were offered online/distance technology, evenings or weekends? _____yes_____ Indicate your preference: _____online_____
60. Indicate the type of support your company will provide for the proposed degree program, such as, program start-up funds, provide an internship site, part-time faculty, tuition reimbursement, employee release time, or equipment: _____ tuition reimbursement _____
61. Will you or a co-worker serve on the institution's program advisory committee? (provide name of employee email)

62. Indicate the skills individuals would need for employment in the positions listed in #1:
- | | | |
|---|---|--|
| <input checked="" type="checkbox"/> Interpersonal communications | <input type="checkbox"/> Supervision/Management | <input type="checkbox"/> Budgeting |
| <input checked="" type="checkbox"/> Written/oral communications | <input type="checkbox"/> Leadership/initiative | <input checked="" type="checkbox"/> Data analysis |
| <input checked="" type="checkbox"/> Team work | <input type="checkbox"/> Planning/Organizing | <input type="checkbox"/> Public Speaking |
| <input checked="" type="checkbox"/> Independent worker | <input type="checkbox"/> Conflict resolution | <input type="checkbox"/> Marketing |
| <input checked="" type="checkbox"/> Analytical reasoning | <input type="checkbox"/> Problem Solver | <input type="checkbox"/> Teacher/Trainer |
| <input type="checkbox"/> Computer programming | <input type="checkbox"/> Computer applications | <input checked="" type="checkbox"/> PowerPoint Presentations |
| <input type="checkbox"/> Foreign Language (specify) _____ | | |
| <input type="checkbox"/> Other skills not listed (identify) _____ | | |
63. How will this proposed degree program benefit your local community, the state, region or nation?
This program would provide more workers for biomedical research.
64. Provide any additional comments about the proposed degree program.

Employer Needs Survey Form

Date: June 14, 2016

Institution: University of Arkansas

Return this survey by email to: lehmer@uark.edu by date: June 30, 2016

(Institution provide email address above)

Proposed Degree Program: Physics (PhD) with a concentration in Astrophysics

Brief description of program:

~~The degree will be issued by the Physics Department and will include a candidacy exam and thesis defense in addition to graduate-level Physics courses in Classical Mechanics, Electromagnetism, Quantum Mechanics, Thermal Physics, Astrophysics, and Astronomy electives (e.g., Cosmology, Extragalactic Astronomy, and Planetary Systems).~~

Employer: **William Brandt, Professor, Penn State**
Type of company: University
Contact Person: William Brandt
Position Title: Professor
Email: niel@astro.psu.edu
Telephone number: 814-865-3509

1. List job titles with your company that require employees to have the knowledge and skills obtained from the proposed degree program:
Postdoctoral Researcher, Research Associate, Professor
2. List the degree required for each job title listed in #1:
Ph.D., or equivalent
3. Indicate the certification/licensure required for each job title listed in #1:
Proof of degree
4. How many positions do you currently have for each job title listed in #1?
For me personally - 4, 0, 0
5. How many position openings do you currently have for each job title listed in #1?
For me personally - 1, 0, 0
6. How many position openings will you have the next 2–5 years for each job title listed in #1?
I estimate the following - 3, 1, 0
7. What is the annual salary for each position listed in #4 & #5?
\$45000, \$50000, TBD

8. If no openings now, when do you anticipate having openings for the positions listed in #1?
Typically I have about one opening per year, on average.
9. Would you give hiring preference to applicants with the proposed degree?
Yes, I am looking for people with astrophysics Ph.D. degrees.
10. Indicate the number of employees who would benefit from enrolling in selected coursework in the proposed degree program? ?
 If yes, would you provide tuition assistance? No
11. Would it be helpful for your employees if the courses were offered online/distance technology, evenings or weekends? Not applicable Indicate your preference: Not applicable
12. Indicate the type of support your company will provide for the proposed degree program, such as, program start-up funds, provide an internship site, part-time faculty, tuition reimbursement, employee release time, or equipment: Not applicable
13. Will you or a co-worker serve on the institution's program advisory committee? (provide name of employee email)
Not applicable
14. Indicate the skills individuals would need for employment in the positions listed in #1:
- | | | |
|--|---------------------------------|-----------------------------------|
| <u>X</u> Interpersonal communications | <u>X</u> Supervision/Management | <u>X</u> Budgeting |
| <u>x</u> Written/oral communications | <u>X</u> Leadership/initiative | <u>X</u> Data analysis |
| <u>x</u> Team work | <u>X</u> Planning/Organizing | <u>X</u> Public Speaking |
| <u>X</u> Independent worker | <u> </u> Conflict resolution | <u>X</u> Marketing |
| <u>X</u> Analytical reasoning | <u>X</u> Problem Solver | <u>x</u> Teacher/Trainer |
| <u>X</u> Computer programming | <u>X</u> Computer applications | <u>X</u> PowerPoint Presentations |
| <u> </u> Foreign Language (specify) <u> </u> | | |
| <u> </u> Other skills not listed (identify) <u> </u> | | |
15. How will this proposed degree program benefit your local community, the state, region or nation?
16. Provide any additional comments about the proposed degree program.

Employer Needs Survey Form

Date: June 14, 2016

Institution: University of Arkansas

Return this survey by email to: lehmer@uark.edu by date: June 30, 2016

(Institution provide email address above)

Proposed Degree Program:

Physics (PhD) with a concentration in Astrophysics

Brief description of program:

The degree will be issued by the Physics Department and will include a candidacy exam and thesis defense in addition to graduate-level Physics courses in Classical Mechanics, Electromagnetism, Quantum Mechanics, Thermal Physics, Astrophysics, and Astronomy electives (e.g., Cosmology, Extragalactic Astronomy, and Planetary Systems).

Employer: Instituto de Astrofisica, Pontificia Universidad Católica de Chile

Type of company: Research University

Contact Person: Franz Erik Bauer

Position Title: Associate Professor

Email: fbauer@astro.puc.cl

Telephone number: +56 2 2354 1159

- List job titles with your company that require employees to have the knowledge and skills obtained from the proposed degree program:
Postdoctoral Research Fellow
- List the degree required for each job title listed in #1:
PhD
- Indicate the certification/licensure required for each job title listed in #1:
Physical copy of degree?
- How many positions do you currently have for each job title listed in #1?
6
- How many position openings do you currently have for each job title listed in #1?
1
- How many position openings will you have the next 2–5 years for each job title listed in #1?
~1/yr
- What is the annual salary for each position listed in #4 & #5?
~\$30,000

8. If no openings now, when do you anticipate having openings for the positions listed in #1?

9. Would you give hiring preference to applicants with the proposed degree?
Requirement, not preference.
10. Indicate the number of employees who would benefit from enrolling in selected coursework in the proposed degree program? **Unclear at the moment**
If yes, would you provide tuition assistance? _____
11. Would it be helpful for your employees if the courses were offered online/distance technology, evenings or weekends? **No** Indicate your preference: _____
12. Indicate the type of support your company will provide for the proposed degree program, such as, program start-up funds, provide an internship site, part-time faculty, tuition reimbursement, employee release time, or equipment: **None of these.**
13. Will you or a co-worker serve on the institution's program advisory committee? (provide name of employee email)
Unclear. Probably not, given large distance between Arkansas and Chile.
14. Indicate the skills individuals would need for employment in the positions listed in #1:
- | | | |
|---|---|--|
| <input checked="" type="checkbox"/> Interpersonal communications | <input type="checkbox"/> Supervision/Management | <input checked="" type="checkbox"/> Budgeting |
| <input checked="" type="checkbox"/> Written/oral communications | <input checked="" type="checkbox"/> Leadership/initiative | <input checked="" type="checkbox"/> Data analysis |
| <input checked="" type="checkbox"/> Team work | <input checked="" type="checkbox"/> Planning/Organizing | <input checked="" type="checkbox"/> Public Speaking |
| <input checked="" type="checkbox"/> Independent worker | <input type="checkbox"/> Conflict resolution | <input type="checkbox"/> Marketing |
| <input checked="" type="checkbox"/> Analytical reasoning | <input checked="" type="checkbox"/> Problem Solver | <input type="checkbox"/> Teacher/Trainer |
| <input checked="" type="checkbox"/> Computer programming | <input checked="" type="checkbox"/> Computer applications | <input checked="" type="checkbox"/> PowerPoint Presentations |
| <input checked="" type="checkbox"/> Foreign Language (specify) Spanish helpful but not necessary | | |
| <input type="checkbox"/> Other skills not listed (identify) _____ | | |
15. How will this proposed degree program benefit your local community, the state, region or nation?
The program itself may not, but any employed personnel would contribute to the building stronger scientific competency and literacy at our University and in Chile more broadly
16. Provide any additional comments about the proposed degree program.

Employer Needs Survey Form

Date: June 14, 2016

Institution: University of Arkansas

Return this survey by email to: lehmer@uark.edu **by date:** June 30, 2016

(Institution provide email address above)

Proposed Degree Program:

Physics (PhD) with a concentration in Astrophysics

Brief description of program:

~~The degree will be issued by the Physics Department and will include a candidacy exam and thesis defense in addition to graduate-level Physics courses in Classical Mechanics, Electromagnetism, Quantum Mechanics, Thermal Physics, Astrophysics, and Astronomy electives (e.g., Cosmology, Extragalactic Astronomy, and Planetary Systems).~~

Employer: NASA Goddard Space Flight Center

Type of company: Government facility

Contact Person: Dr. Ann Hornschemeier Cardiff

Position Title: Chief Scientist, NASA's Physics of the Cosmos program

Email: Ann.Hornschemeier@nasa.gov

Telephone number: 301-286-7632

- List job titles with your company that require employees to have the knowledge and skills obtained from the proposed degree program:
NASA postdoctoral fellow, postdoctoral research scientist, NASA astrophysicist
- List the degree required for each job title listed in #1:
A PhD in physics or astrophysics
- Indicate the certification/licensure required for each job title listed in #1:
The requirement is a PhD in physics or astrophysics and experience in research.
- How many positions do you currently have for each job title listed in #1?
NASA GSFC typically has more than twenty postdoctoral astrophysical positions open each year, and a couple NASA civil service positions open.
- How many position openings do you currently have for each job title listed in #1?
There are several deadlines per year, right now there are 6-8 positions open.
- How many position openings will you have the next 2-5 years for each job title listed in #1?
There will be more than 60 opportunities in the next 2-5 years for new positions.
- What is the annual salary for each position listed in #4 & #5?
For postdoctoral positions the salaries range from 65K-80K per year. For civil service positions the salaries range from 75K-150K.

8. If no openings now, when do you anticipate having openings for the positions listed in #1?
There are job openings.
9. Would you give hiring preference to applicants with the proposed degree?
Yes, this degree would be very attractive for hiring.
10. Indicate the number of employees who would benefit from enrolling in selected coursework in the proposed degree program? We could support a few (2-3) graduate student fellows.
 If yes, would you provide tuition assistance? Yes this is possible.
11. Would it be helpful for your employees if the courses were offered online/distance technology, evenings or weekends? Yes Indicate your preference: Distance technology/online
12. Indicate the type of support your company will provide for the proposed degree program, such as, program start-up funds, provide an internship site, part-time faculty, tuition reimbursement, employee release time, or equipment: We have internships at NASA that are appropriate for PhD students that would provide financial support.
13. Will you or a co-worker serve on the institution's program advisory committee? (provide name of employee email)
Dr. Ann Hornschemeier Cardiff, Ann.Hornschemeier@nasa.gov
 (depending on amount of time required)
14. Indicate the skills individuals would need for employment in the positions listed in #1:
- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Interpersonal communications | <input type="checkbox"/> Supervision/Management | <input type="checkbox"/> Budgeting |
| <input checked="" type="checkbox"/> Written/oral communications | <input type="checkbox"/> Leadership/initiative | <input checked="" type="checkbox"/> Data analysis |
| <input checked="" type="checkbox"/> Team work | <input type="checkbox"/> Planning/Organizing | <input checked="" type="checkbox"/> Public Speaking |
| <input checked="" type="checkbox"/> Independent worker | <input type="checkbox"/> Conflict resolution | <input type="checkbox"/> Marketing |
| <input checked="" type="checkbox"/> Analytical reasoning | <input checked="" type="checkbox"/> Problem Solver | <input type="checkbox"/> Teacher/Trainer |
| <input checked="" type="checkbox"/> Computer programming | <input type="checkbox"/> Computer applications | <input checked="" type="checkbox"/> PowerPoint Presentations |
| <input type="checkbox"/> Foreign Language (specify) _____ | | |
| <input type="checkbox"/> Other skills not listed (identify) _____ | | |
15. How will this proposed degree program benefit your local community, the state, region or nation?
Research in astrophysics tests physics at limits that are unachievable from the ground, and thus represents a cost-effective way to advance our understanding of physics, which leads to technological advances in society.
16. Provide any additional comments about the proposed degree program.

Employer Needs Survey Form

Date: June 14, 2016

Institution: University of Arkansas

Return this survey by email to: lehmer@uark.edu by date: June 30, 2016

(Institution provide email address above)

Proposed Degree Program: Interdisciplinary Physics (PhD) with a concentration in Astrophysics

Brief description of program:

The degree will be issued by the Physics Department and will include a candidacy exam and thesis defense in addition to graduate-level Physics courses in Classical Mechanics, Electromagnetism, Quantum Mechanics, Thermal Physics, Astrophysics, and Astronomy electives (e.g., Cosmology, Extragalactic Astronomy, and Planetary Systems).

Employer: Texas Tech University

Type of company: University

Contact Person: Thomas J Maccarone

Position Title: Associate Professor

Email: thomas.maccarone@ttu.edu

Telephone number: 806 834 3760

1. List job titles with your company that require employees to have the knowledge and skills obtained from the proposed degree program:

Postdoctoral Fellow / instructor / professor

2. List the degree required for each job title listed in #1:

PhD

3. Indicate the certification/licensure required for each job title listed in #1:

4. How many positions do you currently have for each job title listed in #1?

8/1/4 in astrophysics

5. How many position openings do you currently have for each job title listed in #1?

0/0/1

6. How many position openings will you have the next 2-5 years for each job title listed in #1?

4/0/2 (guessing)

7. What is the annual salary for each position listed in #4 & #5?

\$40-55,000 / \$60-80,000 / \$70-150,000

8. If no openings now, when do you anticipate having openings for the positions listed in #1?
Not certain, but prob. postdocs most years, faculty in the next 2-3 yrs.

9. Would you give hiring preference to applicants with the proposed degree?
Yes

10. Indicate the number of employees who would benefit from enrolling in selected coursework in the proposed degree program? None
If yes, would you provide tuition assistance? No

11. Would it be helpful for your employees if the courses were offered online/distance technology, evenings or weekends? No Indicate your preference: _____

12. Indicate the type of support your company will provide for the proposed degree program, such as, program start-up funds, provide an internship site, part-time faculty, tuition reimbursement, employee release time, or equipment: Could perhaps host Arkansas students for extended collaboration visits. Otherwise, provide nothing.

13. Will you or a co-worker serve on the institution's program advisory committee? (provide name of employee email)
I could if need be.

14. Indicate the skills individuals would need for employment in the positions listed in #1:

- | | | |
|---|---|--|
| <input checked="" type="checkbox"/> Interpersonal communications | <input type="checkbox"/> Supervision/Management | <input type="checkbox"/> Budgeting |
| <input checked="" type="checkbox"/> Written/oral communications | <input type="checkbox"/> Leadership/initiative | <input checked="" type="checkbox"/> Data analysis |
| <input checked="" type="checkbox"/> Team work | <input checked="" type="checkbox"/> Planning/Organizing | <input checked="" type="checkbox"/> Public Speaking |
| <input checked="" type="checkbox"/> Independent worker | <input type="checkbox"/> Conflict resolution | <input type="checkbox"/> Marketing |
| <input checked="" type="checkbox"/> Analytical reasoning | <input checked="" type="checkbox"/> Problem Solver | <input type="checkbox"/> Teacher/Trainer → for some |
| <input checked="" type="checkbox"/> Computer programming | <input checked="" type="checkbox"/> Computer applications | <input checked="" type="checkbox"/> PowerPoint Presentations |
| <input type="checkbox"/> Foreign Language (specify) _____ | | |
| <input type="checkbox"/> Other skills not listed (identify) _____ | | |

15. How will this proposed degree program benefit your local community, the state, region or nation?
Arkansas is in a region of fairly large radius without

16. Provide any additional comments about the proposed degree program.
any astrophysics programs. Additionally Prof Lehner was a great hire for your department, and I strongly recommend doing all you can to support him.