The physicist’s guide to interview techniques

A series of booklets to help you in your career
The physicist’s guides are written to assist anyone with a background in physics regardless of what stage they are at in their career – this could be in education or employment.

These guides are unique because the writers have taken into account the skills and abilities that someone with a physics training or background has, so they are specific and relevant to physicists.

We hope that these booklets will be of assistance when you consider your career-development plan.

The IOP wishes you the best of luck in your career. If you require any further information or advice, e-mail members.careers@iop.org.

Other careers guides in this series can be found at www.iop.org/careers.
An interview is an opportunity for an employer to assess a candidate’s suitability for a position in a face-to-face meeting.

They will also try to verify the accuracy of information that you supplied on your CV or application form and judge your ability to communicate effectively.

The interviewer will seek an understanding of your skills, experiences, aspirations and personality by assessing your answers to their questions.

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What should you be using the interview for?

An interview is also your opportunity to demonstrate your suitability for the job that you’ve applied for and to prove that you’re worth employing. You must show that you’ve done your background research and that you want the job, not only because it pays well but also because you want to work with the company for reasons that matter to you. How do you prove this to an interviewer? You do it by ensuring that you can answer the core questions below in a way that will convince the interviewer that you are the person for the job. Your answers should relate to your motivation for applying for the position, and the more confidently and honestly you answer them the more likely it is that you’ll be successful. The core questions are:

• Why are you interested in this job?
• Why do you want to work for us?
• What do you have to offer?

To answer these questions you may want to take the following into account:

Opportunity
Does the organisation present you with the chance to do something rewarding, cutting-edge or exciting (e.g. do you want to contribute to the reduction in carbon emission, or communicate science to the public?) Will you have the opportunity to acquire skills that you don’t have or develop ones that you currently underutilise?

Career fit
Has it always been your ambition to work in this field or is it the next logical step in your career? Do you want to put your skills and experience to use for this particular role? Does this career direction excite you?

Cultural fit
Are you suited to the working environment? For example a PhD may stand you in good stead for working long hours for a professional company. Does the organisation’s principles suit you? For example working for a charity or a non-profit group. Such considerations will be key to your enthusiasm and motivation.

Success
Given your experience, knowledge and track record, you should know in which roles you are likely to be successful. Take time to reflect and ask yourself which aspects of the position best match your opportunities for success. Remember: you need to use past examples to demonstrate why you will be successful.

“Your answers should relate to your motivation for applying for the position, and the more confidently and honestly you answer them the more likely it is that you will be successful.”
What are your weaknesses?

This question needs careful preparation, because you don’t want to say something devastating (“I don’t tend to get on with people”) or facile (“I’m something of a perfectionist”). As with your strengths, you need to consider what you have to offer. Think about situations that you found difficult during your degree, work experience and personal life. Is there a common theme? This might be meeting deadlines, handling confrontation or having to receive feedback. Talk to people whom you trust (perhaps your referee) about these situations and see if they have noticed any trend. If they haven’t, you can answer the question by describing an honest weakness, but with the silver lining of knowing that it doesn’t affect your ability, and use the feedback from others as evidence. Don’t admit to a weakness that will affect your ability to do your chosen job, but, if you think it’s an issue, ask yourself why you would want to pursue a career that you’ll find difficult to succeed in.

On the following pages you will find some more difficult questions with advice about how to tackle them.

What are your strengths?

This might seem embarrassing but you must identify the things that you are particularly good at. Consider your successes to identify experiences in which you achieved your goals and link these to the opportunities available in the position. This will help you to think about what you have to offer.

Your answer should demonstrate the match between what you have to offer and what the job requires, so think about the main demands of the job. If the advert mentions problem-solving skills, use this as an opportunity to talk about pertinent examples and your approach to complex situations. If it focuses on communication then so should you. Your answers need to draw on evidence that you have these strengths, so think about your background before the interview and be aware that sometimes an interviewer will want to hear about more than one example of a really important skill.
Can you describe a time when you have...

This kind of question is competency-based and is designed to identify how your personal characteristics influence the way you behave, and it is intimately linked with the consideration of what you have to offer. The competencies under scrutiny are likely to relate to the job, so you should be able to anticipate how these questions might end. For example, “Can you describe a time when you have...

...led others?”
...managed a complex project?”
...convinced others to act when they didn’t agree with you?”
...motivated a group of people?”
...solved a problem when others have failed?”

To answer, you should briefly set the scene and then quickly move on to describe what you did. Don’t waste time with a lot of detail about the situation or you may come to the end of your answer without having explained your contribution.

Why did you choose to study physics?

Any answer that relates to your degree must be adapted to the context of the interview. You need to consider why you want the job. This will help you to link your degree to the key factors of the position. For example: “My interest in computing led me to physics for the chance to apply my skills to practical problems, which is an aspect of this position that excites me.”

If you are at an early stage in your job search and/or are applying for different types of job, focus on the skills that you’ve gained while studying physics. Be honest: it’s fine to say that you chose to study physics because it fascinates you or because you find it exciting.

Where do you see yourself in five years?

Questions relating to your future prospects should be answered by considering why you want to work for them. Identifying the chances for success and development that the organisation offers will allow you to deal with this kind of abstract, predictive question in a meaningful way.

This is a chance for you to demonstrate your knowledge about the company and the career paths on offer, as well as conveying your ambition and your potential to progress. Your projection should be an honest picture of where you want to be, and it may include supervision/management of others, devising projects (rather than working on other people’s ideas) or developing new technical skills and knowledge.

What should you ask?

At the end of the interview, the interviewer will give you an opportunity to ask questions about the job and the organisation. Your questions should reflect your interest in both and help you to decide whether to accept a position, if you are offered one. You might ask about typical projects or activities that someone at your level of entry might work on, or whether you’ll be involved in a particular project or group that you know about. If you’re stuck, a good fall-back is to ask the interviewer about their experience as an employee – the things they’ve done in their career and the most interesting things about their work. Keep these questions positive and fairly brief.
Some common concerns

“Any answer that relates to your degree must be adapted to the context of the interview.”
In addition to the stress of preparing for an interview, you may be worried about feeling nervous; talking about a bad experience; or asking about how much you will be paid. These concerns are all natural, but how you deal with them may make all of the difference on the day.

You get really nervous – how do you cope?

Most people are really nervous at interviews because a lot may be at stake. Thorough preparation will help you to control your nerves, particularly if this involves a mock interview. Many careers services will offer this or you could ask a friend to ask you some questions for practice. Try to arrive in plenty of time for an interview so that you aren’t additionally stressed by the journey and the possibility of being late. Use the spare time to go for a short walk to calm your nerves. Just before you go into the interview, make a conscious effort to drop your shoulders (they will tend to tighten and hunch), and wipe your hands if they’re perspiring. Then smile…

Can you ask about the salary?

Common advice is not to ask about salary at interview in case it “gives a bad impression”. However, if there has been no mention of the salary either on the advert or by the interviewer, you should feel comfortable towards the end of the interview about asking for some indication of what you would be paid. It is only reasonable for you to know this now rather than having to wait until a second interview or when you are made an offer. If the salary isn’t sufficient then you and the interviewer will have wasted a lot of time and effort.

The interviewer may ask you how much you want to be paid, so make sure you’ve done your research by finding out what the average salary is for this type of job. You could quote a range that you would expect the salary to fall within and then throw the question back at the interviewer.

If you leave the interview not knowing the salary, you could call the company’s human resources department after the interview to ask for more details about salary, working hours, benefits, etc.

How do you describe a bad experience?

Interviewers won’t be put off you if you have had failures or problems in your past if you can show that you have learned from them and can talk about them positively. You might feel that failing the first year of your degree was disastrous, but if you can demonstrate success from then on, it shows that you have learned from the experience and moved on.

If you’ve been unemployed at some point, you should focus on the way you spent your time and any opportunities that this presented (for voluntary work or a chance to change career). The most compelling thing will be your attitude – if this is positive then the interviewer is likely to remember your resilience rather than the problem.
Remember...

- The employer is not trying to catch you out – they are simply looking to find someone who can answer their questions with enthusiasm while addressing their needs in a candidate.
- Do your research and rehearse possible interview questions – use the Institute’s or your university’s careers service.
- Remain positive – no one wants to employ someone who’s negative.
- Write down the questions that you plan to ask at interview.
- If you’re unsure about the dress code, wear a suit.

Recommended books and website

*Brilliant Answers to Tough Interview Questions* Susan Hodgson
*Job Interviews: Top Answers to Tough Questions* M Deluca & J Lee
http://www.businessballs.com/interviews.htm

Written by Dr Sara Shinton.
Find out more...

More information can be found at www.iop.org/careers.