

How to make a formal presentation:

1. Use PowerPoint, Keynote (mac), or other slide presentation tool. LibreOffice, the open-source office suite includes Impress, which is very similar to PowerPoint, and freely available. (Note: Converting between PowerPoint and Impress does not work well, so choose one and stick with it.) General tips: (a) Use uniform fonts and colors for the titles. (b) Use slide numbers so the audience can reference particular slides. (c) Start with an "outline" slide so the audience knows where the talk is going.
2. Keep the slides relatively simple, without a lot of text. Pictures and diagrams with bullet points explaining the pictures and diagrams is a great method and will win over an audience. Most importantly, do not read the slide text to the audience. The slide should contain bullet points that summarize the information in a concise manner. Aim for 2-3 minutes per slide, except for intro and transition slides that can be much shorter.
3. Use "active" titles. The title should contain the takeaway point of the slide. For example, if you are discussing the statistical mechanics and thermodynamics of the harmonic oscillator, you might title your slide "Thermodynamics of the Harmonic Oscillator Are Calculated Directly From the Partition Function". Examples of non-active titles are "The Partition Function" or "The Harmonic Oscillator".
4. Don't go over time. If you do, you will make enemies fast. Most presentation formats are advertised as T+Q, where T=talk time, and Q=question time. For example, a 20 minute slot is often "15+5", and a 15 minute slot is often "12+3". Prepare for your format. Practice your talk beforehand at least twice and know how long it takes for each slide. It helps for someone to listen and take these notes for you. In a professional setting such as a conference, where talks in other concurrent sessions are on a tight schedule, there is no excuse for taking more than your allotted time. The session chair is there to help you keep on track, but not all session chairs do this well.
5. Be prepared. (a) Always use a good laser pointer with new batteries. You can purchase a nice laser pointer for less than \$20. A green laser pointer is usually brighter than red, but they tend to drain batteries very quickly. (b) Don't point your laser pointer at the audience. Some presenters lose track of what they are doing and hold the button down when they turn to talk to the audience. (c) If you get nervous and the laser dot has jitter, hold the pointer with two hands.
6. Finally, don't stress about a talk. Enjoy yourself while you have the podium. If you get nervous, just remember that most people in the audience (a) don't care about your talk topic (20%), (b) can't follow what you are talking about (10%), (c) are working on their own talk (10%), (d) are struggling to stay awake (10%), (e) are reading the news or checking email on their smart phone (10%), (f) are setting up dinner plans with other conferees (10%), (g) are checking into their flight home (5%), (h) are Googling things in your talk they don't understand (5%), (i) are daydreaming (10%), (j) are just trying to take notes (10%).