Teaching During Office Hours

Tips for Teaching One-On-One

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What's different?

One-on-one tutoring

Lecturing

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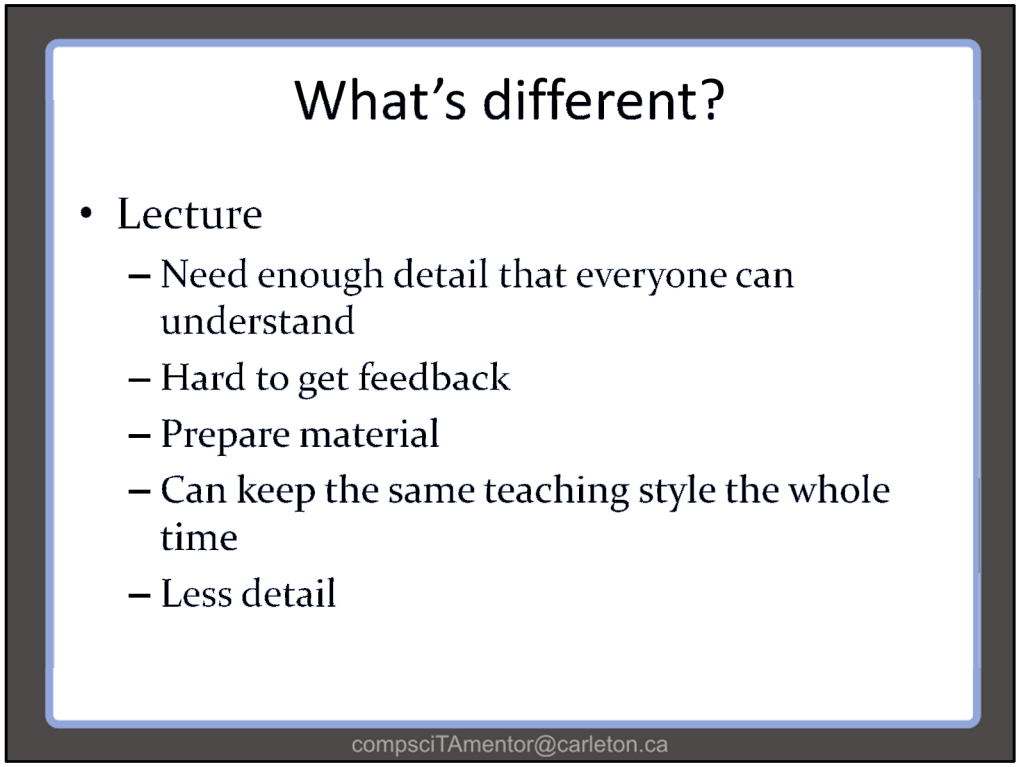
-What is the difference between office hours and teaching a class?
    -Come up with differences in pairs, write stuff on next slide after
-Image sources:
    -http://www.flickr.com/photos/lodge28/4531894332/
    -http://www.flickr.com/photos/andrewscott/2330212397/

-Points in this slide gathered from workshop participants



-Points in this slide gathered from workshop participants

Silence is OK

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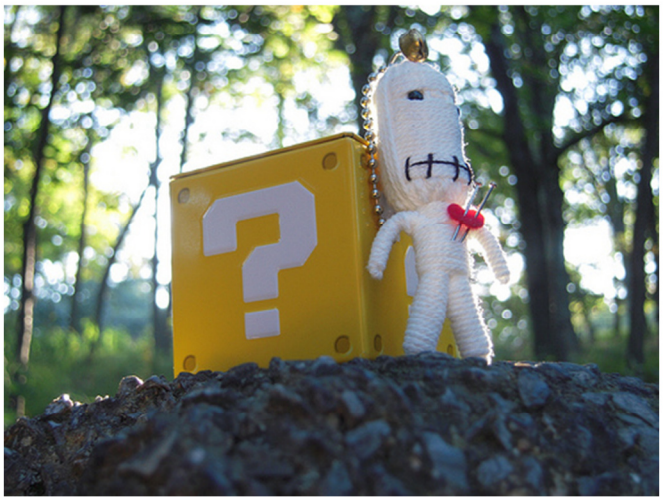
-Don’t be afraid of silence
-Allow student to stop and think without feeling like you are looking over their shoulder
-Give them a chance to practice
-Photo: http://www.flickr.com/photos/ko_an/21686590/

Both Should Ask Questions



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-Ask leading questions rather than giving answers
-Encourage student to ask questions as well – knowledge and learning is not always about figuring out “the right answer” but figuring out how to ask the right questions
-But don’t ask if the student understands – they’ll probably just say yes
-Ask them to explain the concept back to you (or what they did)
-Photo: http://www.flickr.com/photos/f-oxymoron/5005146417/

Question Assumptions

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-Figure out what the student assumes
-It could go deeper than what they say at first – be willing to dig
-Don’t focus on the nitpicky issues (that line of code is wrong); figure out what the underlying cause is
-Photo: http://www.flickr.com/photos/bonnabelle/44565259/

Think Bird's Eye View

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-Don't just give formulas and procedures
-Spend some time giving a high level view of things
    -"The Big Picture"
-Photo: http://www.flickr.com/photos/rajeshvj/3979069539/

Give Creative Freedom

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-Is a student trying to solve something in a strange way?

-Even if it seems wrong at first, give them the freedom to try

-Then ask guiding questions afterward to help them reflect on what worked and what didn't

-Similarly, encourage the student to think across disciplines – there may be interesting ways to think about a problem that are inspired from experience in other subjects

-Photo: http://www.flickr.com/photos/interaura/12904538/

Allow Mistakes

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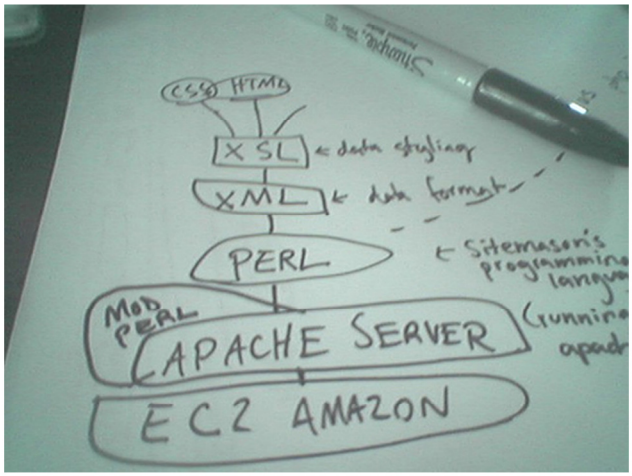
-Related to giving creative freedom
-Even if you know they are going in the wrong direction, don't give it away – let them discover it for themselves
-Be sure to reinforce the parts done correctly afterwards
-Photo: http://www.flickr.com/photos/andrewpescod/2288516703/

Consider Learning Styles



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-Some students work best in writing, with pictures, or talking about something
-Try to figure out what they're good at
    -Don't be afraid to ask something like "do you think you would understand this better if I drew a picture?"
-Be prepared to approach things from a different angle
-Photo: http://www.flickr.com/photos/nathanbaker/2616222424/

Find What Excites Them

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-Make something they're struggling with fun by relating it something they care about
-You might be able to discover what they're into with small talk
    -Added bonus: make them more relaxed and maybe feel more confident
-Photo: http://www.flickr.com/photos/artolog/2426326576/

Admit Not Knowing

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-Sometimes you just don't know the answer – there are options
-You can try to use the notes and textbook to ask leading questions and hope you figure it out along with the student
    -Only do this if you have some confidence it will be possible
-If you really don't know, ask the student to email you the question (so you don't forget) and then work through it on your own
-Photo: http://www.flickr.com/photos/plunkmasterknows/357836855/