

# **EC2101: Microeconomic Analysis I**

# Lecture 0

## Course Overview

- What is EC2101 about?
- How will we be learning in this class?
- I can multitask while watching the videos or sitting in class, right?

# Lecture 0

## Course Overview

- What can I do to succeed in EC2101 (and in college)?
- What learning strategies can I pick up from the most successful students?

# Lecture 0

## Course Overview

- Getting straight A's in college is necessary and sufficient to be successful in my career, right?
- What skills/attributes are employers looking for?
- What am I motivated by?

**What is EC2101 about?**

# EC2101/EC3101 vs. EC1101E

- EC1101E
  - Introductory level
  - Focus on knowing basic concepts
  - Limited mathematics and graphs
- EC2101/EC3101
  - Intermediate level
  - Focus on understanding economic models
  - Use of calculus and more graphs

# Course Objectives

- Master key concepts and principles in microeconomic theory
- Develop a set of analytical tools
  - Use graph, mathematics, and logic to do quantitative and qualitative analysis
- Prepare for more advanced modules

# What is Microeconomics?

- Microeconomics studies how individual economic agents (e.g., consumers, households, workers, firms) make decisions.
  - Assume individual economic agents are rational.
  - Assume individual economic agents face limited resources.

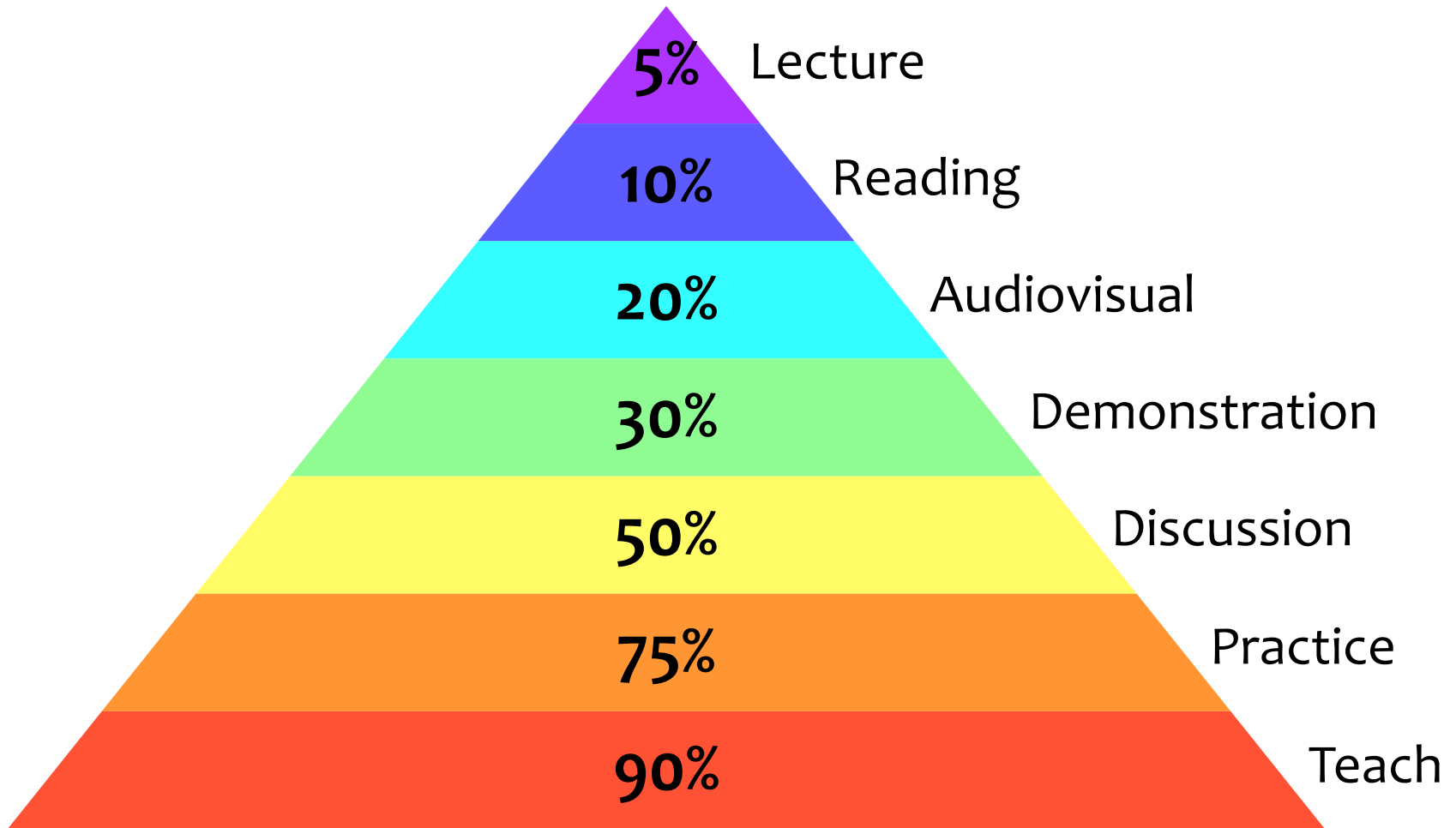


# Tentative Course Outline

- Part I: **Theory of the Consumer**
  - Weeks 1–5: BB Chapters 3–5
- Part II: **General Equilibrium — Exchange Economy**
  - Weeks 5–6, 8: BB Chapter 16 + chapters on LumiNUS
- Part III: **Theory of the Producer**
  - Weeks 9–10: BB Chapters 6–8
- Part IV: **Partial Equilibrium — Perfect Competition**
  - Weeks 11–13: BB Chapters 9–10

**How will we be learning  
in this class?**

# Average Student Retention Rates



Source: National Training Laboratories, Bethel, Maine

# Learning

- Lecture Notes *LumiNUS => Files*
  - *Available at 12:00 p.m. Thursday, a week before the face-to-face lecture.*
- Pre-Lecture Videos *LumiNUS => Multimedia*
  - *Available at 12:00 p.m. Thursday, a week before the face-to-face lecture.*
  - *This class is designed based on how we learn. As you watch the Pre-Lecture Videos, work on the Exercises (and occasionally Summaries and Applications) in the Lecture Notes. These tasks should be completed before the face-to-face lecture. We will go over the Exercises, etc. during the face-to-face lecture.*

# Learning

- Readings Textbook, etc.
  - *The textbook serves as a useful reference.*
  - *Occasionally there will be news articles and academic journal articles to illustrate the real-world relevance of the theoretical concepts we are studying.*



# Reinforcing Learning

- Problem Sets *LumiNUS => Files*
  - *Submit your problem sets in groups of 2–3 by 11:59 p.m. two days before your tutorial. Problem Sets are scored on the basis of effort, not accuracy. Plagiarism will not be condoned.*
- Tutorial *Monday–Thursday*
  - *Tutorial scores are based on attendance and participation. What matters is effort, not accuracy.*
  - *Be prepared to verbalize your understanding of the material. It's okay if you don't have the perfect explanation — we're here to learn!*

**I can multitask while  
watching the videos or  
sitting in class, right?**



# Multitasking

- While many people say **multitasking** makes them more productive, research shows otherwise.
- Heavy multitaskers:
  - have more trouble **focusing** and **shutting out irrelevant information**
  - experience more **stress**
- Even after the multitasking ends, **fractured thinking** and **lack of focus** persist.



# Multitasking

- You may feel like you're accomplishing more, but studies show that:
- Trying to focus on more than one thing causes a **40% drop in productivity.**
- While working, being distracted by incoming calls or emails **lowers a person's IQ by 10 points** — which is the equivalent of missing a night of sleep.



# Multitasking

- The temptation to multitask is strong.
- For the sake of your **future self**, try to resist.
- If your attention is split while you are watching the pre-lecture videos or sitting in class, chances are, **nothing much is registering in your brain.**



**What can I do to succeed  
in EC2101  
(and in college)?**

# How Do We Learn?

- The most effective study strategies:
  - **Retrieving / Testing**
  - **Spacing**
  - **Interleaving**
- Articles and book excerpts are uploaded on *LumiNUS => Files => How to Learn and How to Succeed.*



During my first two years at NUS, if I did not know how to answer a question on a problem set, I did not bother attempting the question at all. I often attended tutorials without having attempted many of the questions.

I did not realise what I was missing out on until I started teaching. I saw firsthand that my students were more able to master the material when they attempted the questions, even if they had gotten everything wrong on their attempt.

I realised that my fear of failure and my dislike of spending time and effort that may potentially be wasted had gotten in the way of getting the most out of problem sets and tutorials. In my last year at NUS, I would spend hours and days doing problem sets even when it seemed like I was getting nowhere. This attitude came a few years late, but better late than never!

*Yeow Yi Cheng Carolyn*

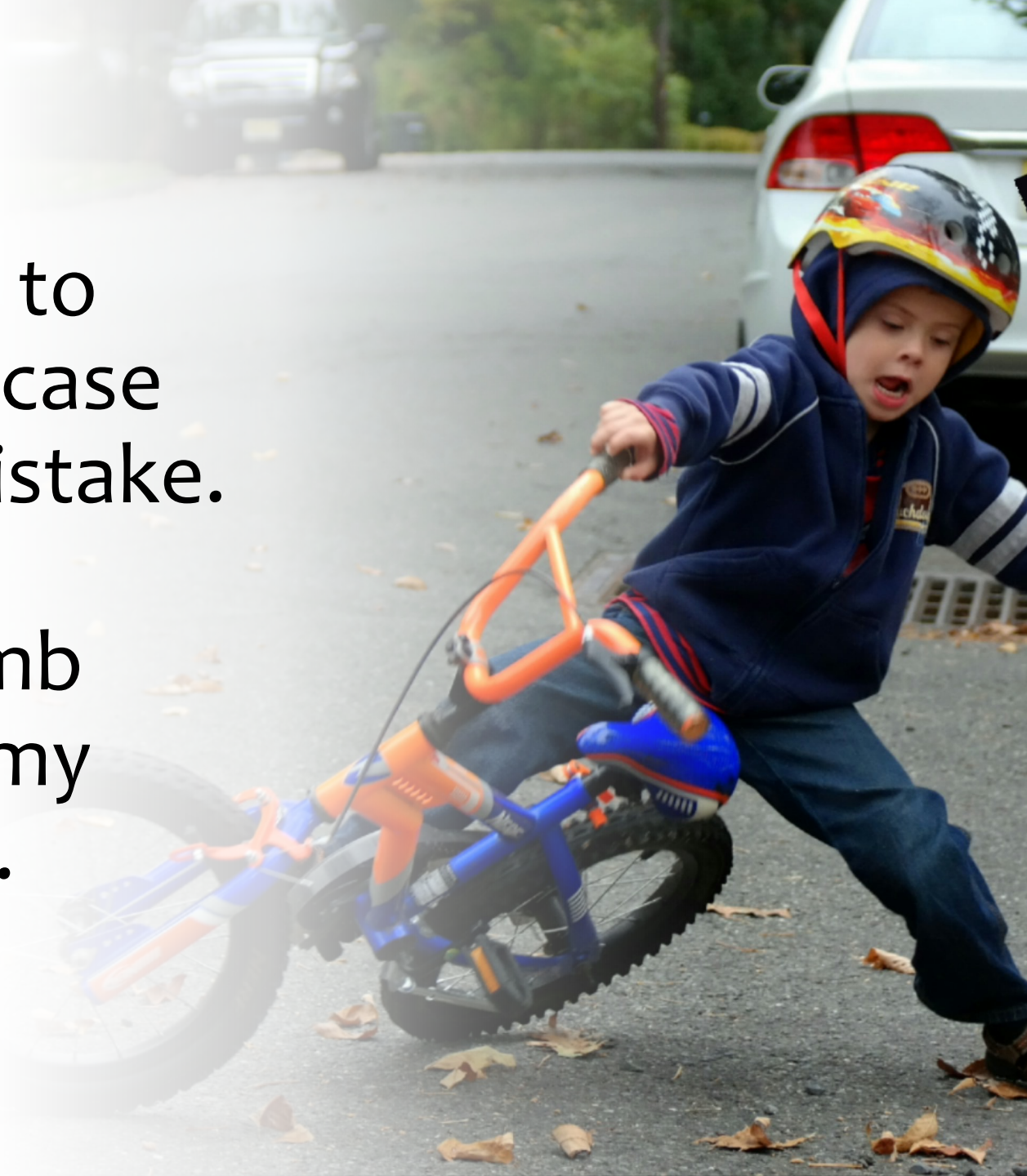
*Teaching Excellence Award for Undergraduate Teaching Assistants, Spring 2020*

# Tips for Doing Well in EC2101

- Work on problems.
- Connect the dots.
- Apply what you have learned to the world around you.
- Ask, seek, knock.
- Teach someone.
- Don't be afraid of making mistakes.



I don't want to  
respond in case  
I make a mistake.  
I don't want  
to look dumb  
in front of my  
classmates.



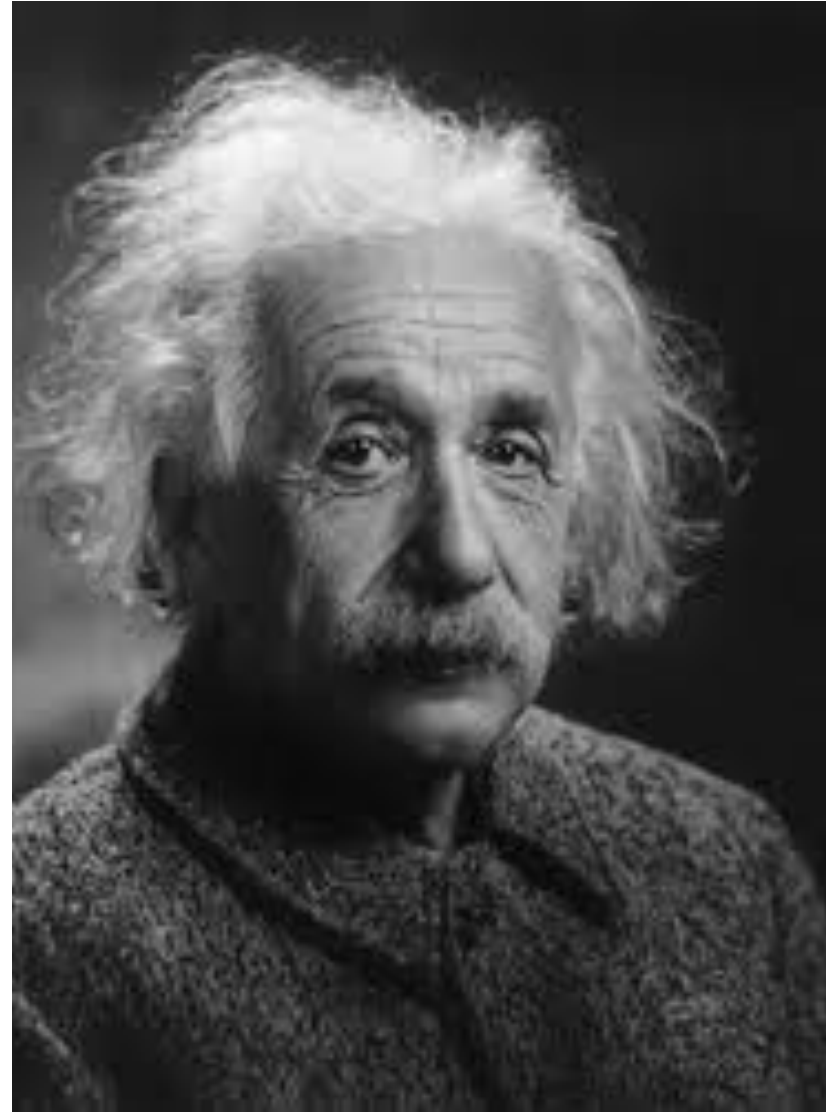




Who has  
**NEVER**  
made a mistake?

*“Anyone who has  
never made a mistake  
has never tried  
anything new.”*

*Albert Einstein*



All of us,  
myself included,  
are going to  
make mistakes  
over the course of  
the semester.



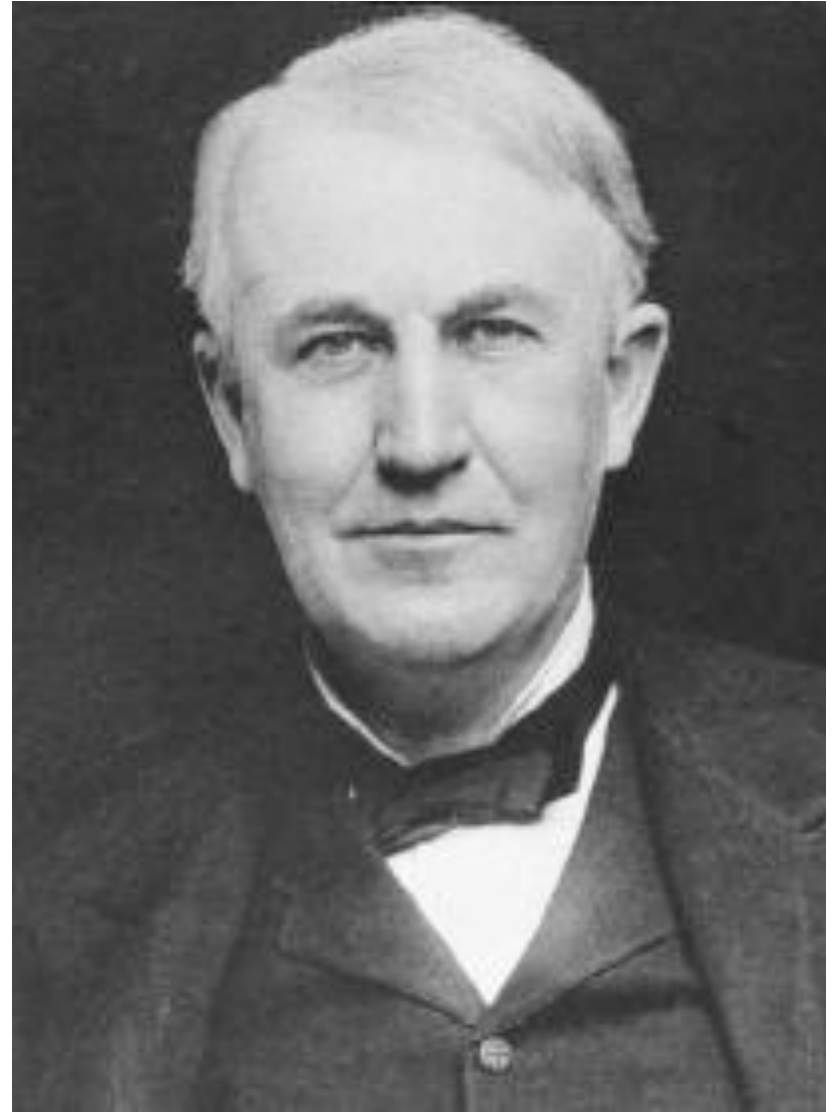




Making mistakes is  
a constructive part of learning —  
not a sign of *failure*  
but a sign of *effort*.

*“I have not failed.  
I’ve just found  
10,000 ways that  
won’t work.”*

Thomas Edison



**What learning strategies  
can I pick up from  
the most successful  
students?**

I would explain the concepts to myself out loud, and I would teach my peers whenever they needed help. Verbalising concepts helped me identify gaps in my understanding and clear up misconceptions that I might not otherwise have noticed.

It is natural to think that we know the material when we can understand the lecture. However, from my experience, as well as from observing my peers and students, there are so many ways we can get confused. Sometimes, the confusion can be cleared up just by talking it through with another person.

*Yeow Yi Cheng Carolyn*

*Teaching Excellence Award for Undergraduate Teaching Assistants, Spring 2020*

I abide by the rule of “Minimum Effort, Maximum Efficiency”.

I made it a goal to clarify all my doubts within one class so they don't accumulate. At the end of each day, I would write my own summaries for each lecture I had attended that day while my memory was still fresh, and finish the homework for those lectures.

If I had extra time, I would preview the lecture notes for the next day to prepare myself for class. The effort I exerted on a daily basis paid dividends.

*Chen Jingjing*

*2020 LSA-AT Nuevo Economics Medal & Prize*



While rewatching lecture webcasts, I write down what the lecturer is saying, but in my own words. Doing so forces me to check whether I truly understand the material, or whether I am merely regurgitating words.

Revise and revisit the content of the modules that you have taken as upper-level modules build on lower-level modules. Forgetting everything after exams are over will drastically hinder your ability to succeed in future modules.

*Chia Xue Yi*

*2020 MAS Academic Excellence Prize*

*2021 Ministry of Trade and Industry (Economist Service) Prize*

*2022 Valedictorian*

*2022 Economic Society of Singapore Medal*

Thoroughly understanding the material in each chapter, and more importantly, seeing how the different chapters and models come together to form the big picture. Having an appreciation of the bigger picture helps me see the context behind the different ideas in each chapter, each of which can be hard to follow on its own.

An example would be constrained optimisation, which underpins various topics in economics. Individuals make utility-maximising decisions based on their preferences and budget constraints, and firms make profit-maximising decisions based on their production technology and input prices.

I've also found asking questions during class and forming study groups to be extremely helpful.

*Daniel Hoong Kay Hian*

*2020 Ministry of Trade and Industry (Economist Service) Prize*

*2021 Valedictorian*

To internalise and rationalise the material, I try to understand the intuition underlying the material, and I relate the material to prior knowledge or first principles.

*Elliot Tan Chek Kai*  
*2020 Paul Sherwood Memorial Prize*

Chemical engineering and economics both require analytical skills. On exams, the questions that differentiate students will usually have a twist. These questions test whether we truly understand concepts. If we are unable to apply our knowledge to different situations, we probably haven't learned anything.

In both fields, there are usually many variables involved in each problem. If certain assumptions were to change, solving the problem might require a different approach. Therefore, while studying, I ask myself what would happen if something changes.

*Lim Wei Qian, Willy*

*2020 LSA-AT Nuevo Economics Medal & Prize*

Consistency and efficiency are crucial. I do my readings and skim through the lecture notes before class. Trying to process the material before it is taught enables me to absorb as much as possible during class.

*Teo Po Han*

*2020 Ho Family Prize*

I focus on understanding the key concepts in each lecture rather than blindly memorising them, since we're often tested on our ability to apply the concepts that are covered in lectures.

I also make it a point to consistently review the lecture content and to clear up my misconceptions, as I find leaving things to the last minute to be overly stressful.

*Wan Xuan Ting, Meredith*

*2020 Valedictorian*

*2020 Rachel Meyer Prize*

*2020 Thomas H. Silcock - NUS Department of Economics Medal & Prize*

Being consistent and keeping up with assignments and readings. It may seem like a chore initially, but it makes revising for the finals much easier, because there is no need to cram all the semester's work into a week of studying.

I also believe that discussing assignments with a study group works wonders, because you can bounce ideas off one another, and identify and correct your misconceptions early.

*Chan Yu Wai, Wilson*

*2021 You Poh Seng Prize in Econometrics*

*2021 LSA-AT Nuevo Economics Medal & Prize*

Staying on task. It may be tempting to skip a week's worth of lectures and learning material. However, work piles up faster than you imagine and there will never be enough time to review everything in detail. Thus, it is better to exercise self-discipline and complete tasks on time so that you can approach your professors or TAs for clarification if necessary.

*Clare Chia Xiao Fen*

*2021 LSA-AT Nuevo Economics Medal & Prize*



Annotating while reading. I am actually a very bad reader and reading to me is passive. I can recognise each word in the sentence, but I'm unable to comprehend what the sentence is trying to convey overall, especially academic papers that can be quite technical or abstract. Annotating is therefore important for me, as it makes reading active. The process of writing notes on the side enables me to consolidate what I read and pick out the key ideas.

*Jennifer Yao Chenyin*  
*2021 Ho Family Prize*

Asking questions, recapping and summarising, and practicing. For me, listening to a lecture is not a passive event where I simply absorb what is said. I try to understand the material at a deeper level. Some of the questions I found useful to ponder are: What are the assumptions being made in this model or concept? How are the formulas derived? Are there any cases that may be contradictory or unusual? How are these inconsistencies resolved by the model?

Economics, unlike the physical sciences, is not an exact science. There are many assumptions made, and every model has its “strengths” and “weaknesses.” If I am able to identify those, I know I have gained a deeper insight into the theory.

*Khiew Zhi Kai*

*2020 NTUC Medal & NTUC FairPrice Foundation Prize*

*2021 Lim Tay Boh Memorial Medal*

*2021 Paul Sherwood Memorial Medal*

I think it is important that we really understand what we are being taught. Many a time, especially in engineering modules, complex formulas are thrown at us with a lot of assumptions and proofs. Since those are usually not tested, it may be tempting to simply glance at or even skip them since on an exam, we only need to know how to use them.

However, I always try to understand the rationale behind a formula so that I have a better understanding of its use and the implications of the various parameters. Ultimately, spending the time and effort to understand an abstract formula, theory, or model makes learning the content much easier for me.

*Lester Ng Keng Hui*

*2021 LSA-AT Nuevo Economics Medal & Prize*

Practice and derivation, with the ultimate goal of internalising knowledge. For almost every single module I took, I always prepared my own comprehensive notes based on learning materials provided by professors. When writing up such notes, I always try to derive everything from scratch; in this way, I am able to bridge many knowledge gaps that I wasn't aware of. I try to go through my notes at least two to three times to ensure that the course knowledge becomes almost instinctive.

*Liu Shangke*

*2020 Daiwa Prize*

*2021 Lee Kuan Yew Gold Medal*

*2021 Thomas H. Silcock – NUS Department of Economics Medal & Prize*

I try to explain the concepts we are learning to my friends; through the process, I discover inconsistencies in my own understanding. Also, making my own summaries on paper helps me collect my thoughts and ensures that I spend enough time thinking about every detail.

*Naman Agrawal*  
*2021 Wee Mon Cheng Medal*

I jot down my questions during class and consult the lecturer right after class. Some of us may feel *paiseh* to approach the lecturer in front of the class, but chances are, another student has the same question. So even if you think your questions are silly, you can take solace in the fact that you are likely generating positive externalities!

Neo Yu Xuan

2021 Economic Society of Singapore Medal

Studying with friends whenever possible! I find myself tending to procrastinate, so studying with friends helps me to focus. Also, exchanging ideas and recapping concepts with friends help me gain a deeper understanding of the module content.

*Quek Ee Pin*

*2020 Shell Silver Medal*

*2021 MAS Academic Excellence Prize*

**Getting straight A's in college is necessary and sufficient to be successful in my career, right?**



# Straight A's

- By all means, try your best and aim for A's.
- But your grades do not define you.
- Neither do they guarantee success (or failure) in your career.

This article is uploaded on *LumiNUS* => *Files* => *How to Learn and How to Succeed*.

# Straight A's

- In “What Straight-A Students Get Wrong,” Adam Grant writes:
  - Academic excellence is not a strong predictor of career excellence.
  - Across industries, research shows that the correlation between grades and job performance is **modest** in the first year after college and **trivial** within a handful of years.

# Straight A's

- In “What Straight-A Students Get Wrong,” Adam Grant writes:
  - Academic grades rarely assess qualities like **creativity, leadership, and teamwork skills, or social, emotional, and political intelligence.**
  - Yes, straight-A students master cramming information and regurgitating it on exams.
  - But career success is rarely about finding the right solution to a problem — it's more about **finding the right problem to solve.**

This article is uploaded on *LumiNUS => Files => How to Learn and How to Succeed.*

**What skills/attributes are  
employers looking for?**

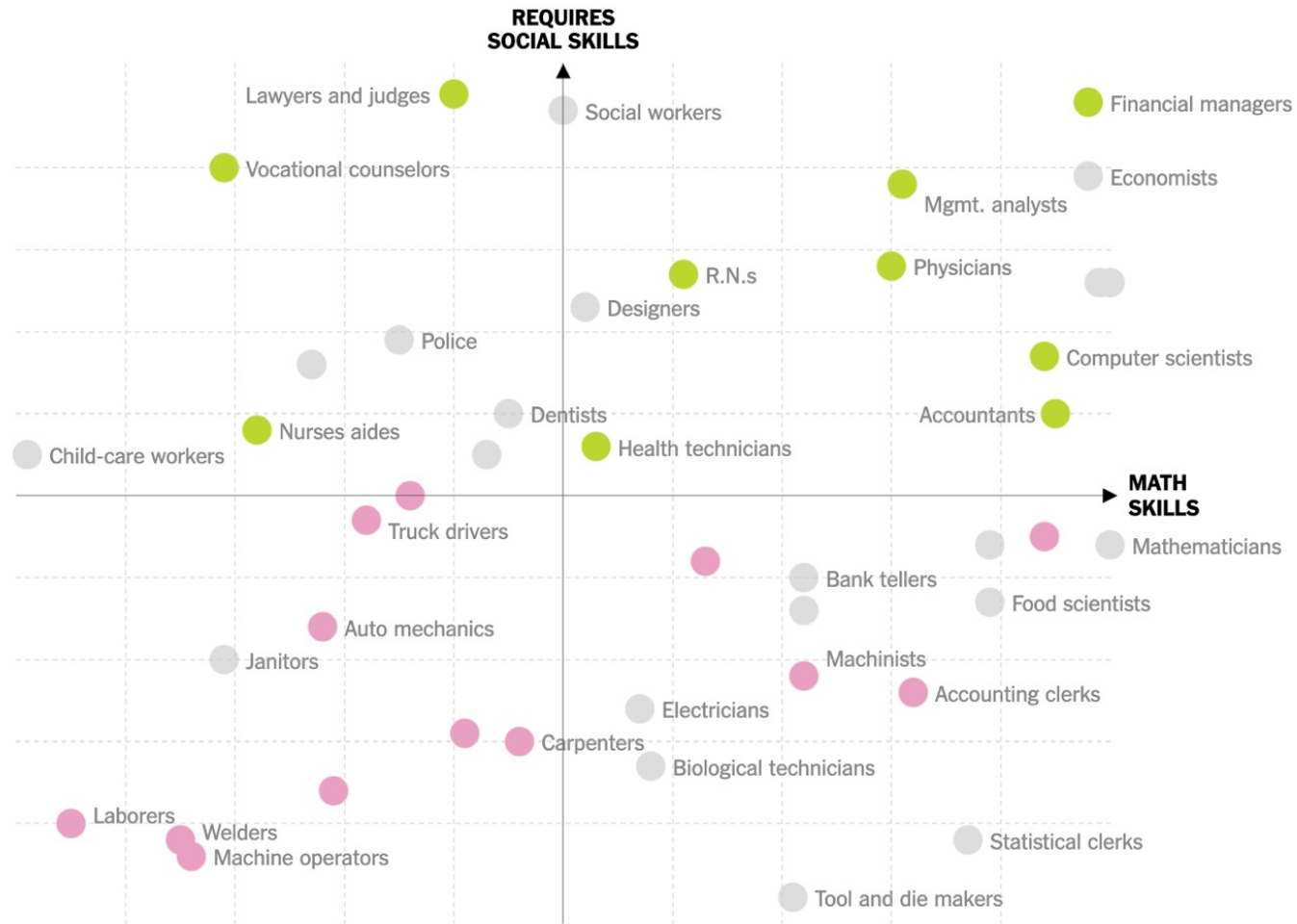
# Skills in the Labor Market

- For all the jobs that machines can now do — whether performing surgery, driving cars or serving food — they still lack one distinctly human trait. They have no social skills.
- Yet skills like **cooperation**, **empathy**, and **flexibility** have become increasingly vital in modern-day work.
- Occupations that require strong **social skills** have grown much more than others since 1980, according to new research.
- And the only occupations that have shown consistent wage growth since 2000 require both **cognitive skills** and **social skills**.

# Math and Science Are Not Enough

The jobs that have grown most consistently in the last two decades have been those that require high math skills and high social skills.

**KEY: Change in share of jobs, 1980 to 2012**    ● Fell    ● About the same    ● Grew



Source: David Deming, Harvard University

“The economic return to pure **technical skills** has flattened, and the highest return now goes to those who combine **soft skills** — excellence at communicating and working with people — with **technical skills**.”

Larry Katz  
Professor of Economics,  
Harvard University



# Attributes that Employers Value in Employees

Attribute	Percent of Employers
Ability to work in a team	81.0%
Problem-solving skills	79.0%
Analytical/Quantitative skills	76.1%
Communication skills (verbal)	73.2%
Communication skills (written)	72.7%
Initiative	67.8%
Leadership	67.8%
Technical skills	67.8%
Flexibility/adaptability	65.9%
Strong work ethic	65.4%

Source: *Job Outlook 2021 Spring Update*, National Association of Colleges and Employers



**What am I motivated by?**

# What Motivates You?

- **Intrinsic** motives, e.g., personal fulfillment or interest?
- **Extrinsic** motives, e.g., wealth, status, power?

# What Motivates You?

- Research on cadets at the U.S. Military Academy at West Point showed that **intrinsically** motivated cadets were more successful than **extrinsically** motivated cadets.
- **Intrinsically** motivated cadets:
  - Were more likely to graduate and become commissioned officers.
  - Had earlier promotion recommendations.
  - Were more likely to remain in the military beyond their minimum five years of mandatory service.