# Skills 'R us – foundations of liberal education

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Undergraduate Research in LA, Sept. 2017, Uni. Warwick

# Settings

ΙΔ +

### Liberal Arts ; Liberal Arts & Sciences; Liberal Arts & Natural Sciences

A A Association of American Colleges & Universities A Voice and a Force for Liberal Education in the 21st Century

### What Is a 21st Century Liberal Education?

- Liberal Education is an **approach to learning** that empowers individuals and prepares them **to deal with complexity, diversity, and change**.
- It provides students with broad knowledge of the wider world (e.g. science, culture, and society) as well as in-depth study in a specific area of interest.

LIBERAL EDUCATION

# **Purpose of Liberal Education**

### **Classical Quotations**

→ The study of the classics, James Russell Lowell (1819-1891) writes, "is fitly called a liberal education, because it emancipates the mind from every narrow provincialism, whether of egoism or tradition, and is the apprenticeship that everyone must serve before becoming a free brother of the guild which passes the torch of life from age to age."

→ John Henry Newman (1801-1890) put it, in Discourse V of his *Idea of a University*, by a liberal intellectual discipline, "a habit of mind is formed which lasts through life, of which the attributes are freedom, equitableness, calmness, moderation, and wisdom; of what...I have ventured to call the philosophical habit of mind."

#### Another "Two Cultures" potential clash

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By "liberal education" means an ordering and integrating of knowledge for the benefit of the free person — as contrasted with technical or professional schooling, now somewhat vaingloriously called "career education", for the person 'bound' to their profession!...

#### From Sir William Hamilton (1788–1856) Metaphysics (publ. 1858):

Now the perfection of man as an end and the perfection of man as a mean or instrument are not only not the same, they are in reality generally opposed. And as these two perfections are different, so the training requisite for their acquisition is not identical, and has accordingly been distinguished by different names. The one is styled liberal, the other professional education—the branches of knowledge cultivated for these purposes being called respectively liberal and professional, or liberal and lucrative, sciences.

# Skills



# Skills

Essential Skills for Undergraduate Life: the 13 Things You Should Know How to Do Before You Go to University https://www.oxfordroyale.co.uk/articles/13-skills-

university.html

#### ACADEMIC SKILLS

- 1. Written English,
- 2. Essay Writing
- 3. Reading
- 4. Note taking
- 5. Independent Learning
- 6. Research
- 7. Presentation skills
- 8. Exam technique

#### SOCIAL SKILLS

. . . .

- 9. Conversation
- 10. Self-motivation
- 11. Time management

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INFORMATION FOR CURRENT STUDENTS

TRANSITION

### Skills

### **Study Skills**

At university you are expected to learn independently; this means taking responsibility for your own study. Many of the academic skills you are expected to use whilst at university will be new to you. Some of the skills you will need to develop are:

- > Reading and Note-making
- > Research & Evaluation
- > Critical Thinking Skills
- Writing Skills
- Referencing
- > Groupwork & Presentations
- > Exams Skills

Your department may provide workshops covering many of these aspects of study during your first term. UCL Library Services run training sessions on research and referencing skills (<u>https://www.ucl.ac.uk/library/training</u>). There are also some useful resources below to help you master these academic skills.

#### Study Skills Resources

Please find links below to presentations and other useful resources to help you with the academic skills required at university such as essay writing, learning techniques, referencing, presentation skills and assessment methods at UCL.

# Skills (from Employers' perspective)

Figure 9: Core work-related skills

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Abilities	Basic Skills	Cross-functional Skills	
Cognitive Abilities » Cognitive Flexibility » Creativity » Logical Reasoning » Problem Sensitivity » Mathematical Reasoning » Visualization	Content Skills » Active Learning » Oral Expression » Reading Comprehension » Written Expression » ICT Literacy	Social Skills » Coordinating with Others » Emotional Intelligence » Negotiation » Persuasion » Service Orientation » Training and Teaching Others	Resource Management Skills » Management of Financial Resources » Management of Material Resources » People Management » Time Management
Physical Abilities » Physical Strength » Manual Dexterity and Precision	Process Skills » Active Listening » Critical Thinking » Monitoring Self and Others	Systems Skills » Judgement and Decision-making » Systems Analysis	Technical Skills » Equipment Maintenance and Repair » Equipment Operation and Control
WORLD ECONOMIC FORUM Agenda Events Reports		Complex Problem Solving Skills » Complex Problem Solving	<ul> <li>» Programming</li> <li>» Quality Control</li> <li>» Technology and User</li> <li>Experience Design</li> <li>» Troubleshooting</li> </ul>

# **Correlating skills**

### IT TAKES MORE THAN A MAJOR:

#### **Employer Priorities for College Learning and Student Success**

Employers Say Colleges Should Place Varying Degrees Of Emphasis On Selected Learning Outcomes				
	More %	Less %	Same %	
Critical thinking and analytical reasoning skills	82	7	11	
The ability to analyze and solve complex problems	81	6	13	
The ability to effectively communicate orally	80	8	12	
The ability to effectively communicate in writing	80	8	12	
The ability to apply knowledge and skills to real-world settings	78	6	16	
The ability to locate, organize, and evaluate information from multiple sources	72	9	19	
The ability to innovate and be creative	71	9	20	
Teamwork skills and the ability to collaborate with others in diverse group settings	67	11	22	
The ability to connect choices and actions to ethical decisions	64	9	27	
Knowledge about science and technology	56	9	35	
The ability to work with numbers and understand statistics	55	10	35	
Proficiency in a language other than English	43	18	39	
Knowledge about global issues and developments and their implications for the future	40	15	45	
Knowledge about the role of the United States in the world	35	18	47	
Knowledge about cultural diversity in America and other countries	33	22	45	
Civic knowledge, civic participation, and community engagement	30	18	52	
Knowledge about democratic institutions and values	27	20	53	

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# **Employers' perspective (UK)**

### **Education and Skills Survey, UK employers**

### Exhibit 2.3 Employer satisfaction with school/college leavers' skills (%)

0		20	40	60	80	815
Use of IT		26		63		11
Teamworking	7	_	64		_	29
Basic numeracy skills	9	_	62		-	29
Basic literacy and use of English	7		60		-	33
Positive attitude to work	8		59			33
Technical skills	5		61		_	34
Problem solving	5		55			40
Communication skills	5		49		46	
Attitudes/behaviours eg resilience	5	_	47		48	
Skills of analysis	4		45		51	
Knowledge about their chosen job/career	4		4		52	
Relevant work experience	3	- 41	1		54	
International cultural awareness	5	34			56	
Business and customer awareness		37			62	
Foreign language skills	ź	32			55	
	Very	satisfied	<ul> <li>Satisfied</li> </ul>	Not :	satisfied	

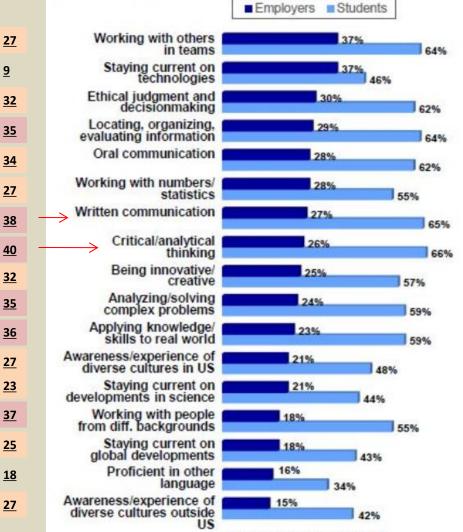
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# **Discrepancies of views**



#### Employers give college graduates low scores for preparedness across learning outcomes; students think they are better prepared.

Proportions saying they/recent college graduates are well prepared in each area\*



\*8-10 ratings on zero-to-ten scale

# **The Essential Learning Outcomes**

### **Academic - centered**

# Liberal Education OUTCOMES

A PRELIMINARY REPORT ON STUDENT ACHIEVEMENT IN COLLEG



#### KNOWLEDGE of Human Culture and the Natural World:

#### Science

Social sciences

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- Mathematics
- Humanities
- Arts

#### INTELLECTUAL AND PRACTICAL SKILLS:

- Written and oral communication
- Inquiry, critical and creative thinking
- Quantitative literacy
- Information literacy
- Teamwork
- Integration of learning

#### INDIVIDUAL AND SOCIAL RESPONSIBILITY:

- Civic responsibility and engagement
- Ethical reasoning
- Intercultural knowledge and actions

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Propensity for lifelong learning

# **The Essential Learning Outcomes**

## Personal (pastoral) - centered

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- A. The Cognitive Domain with three clusters of competencies:
  - 1. Cognitive processes and strategies (critical thinking, problem solving, analysis, decision making)
  - 2. Knowledge (information literacy; oral and written communication, active listening)
  - 3. Creativity (generating links, alternative interpretations, innovation)
- B. The Intrapersonal Domain with three clusters of competencies:
  - 1. intellectual openness (flexibility, interest and curiosity, cultural appreciation, personal and social responsibility);
  - 2. work ethic and conscientiousness (initiative, perseverance, resilience, ethics, 'outwardly' reflection)
  - 3. positive core self-evaluation (physical and psychological health, self-reflectivity)
- C. The Interpersonal Domain includes three clusters of competencies:

- 1. Teamwork and collaboration (communication, empathy, negotiation, conflict resolution)
- 2. Leadership (assuming responsibility, self-presentation, assertiveness)
- **3. Social dimension** (awareness of cultural diversity, ethical reasoning, civic engagement)

# Mapping

### **Team Working**

Descriptor	Example of skills	Examples of "external" application
The process of interacting and working collaboratively with a group of people in order to achieve a goal.	<ul> <li>Understanding own role within a team</li> <li>Knowledge of the different roles within a team</li> </ul>	<ul> <li>Group work activities as part of a degree subject</li> <li>Getting involved in volunteering projects or community activities</li> <li>Taking part in University committees such as sport and drama groups</li> <li>Outdoor team pursuits</li> <li>Work experience – negotiating with others, motivating and supporting other team members, resolving disputes</li> </ul>

### **Problem-solving**

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Descriptor	Example of skills	Examples of "external" application
Process by which an individual or team works through the details of a problem, utilising their creativity, available resources, reasoning and past experiences in order to reach a solution.	<ul> <li>Ability to identify and analyse situations</li> <li>Generating alternative solutions</li> <li>Ability to deal with and implement change</li> <li>Use of initiative and logical reasoning</li> <li>Ability to evaluate information</li> </ul>	<ul> <li>Thinking of ways to re-vitalise a club or society</li> <li>Analysing systems and processes and considering how things could change to make improvements</li> <li>Negotiating with colleagues in jobs or tasks involving rotas and clashes.</li> </ul>

# Mapping - <u>Home work</u>

for:

- Module Leads/Organisers
- (single) Lecture delivery
- 1. List the range of skills that are relevant to your course/lecture
- 2. Define each of these skills in reasonable precise terms (what YOU think is relevant for each).
- 3. (optional) Define subset of skills included in the main category
- 4. Define levels of attainment for the development of the skills (will maybe come handy for the assessment process)

# **Implementation**

#### **A. Preparation** - Use the above home work ...

### **B. Delivery**

- Think of the actual examples/contexts used for implementing each of the skills considered...

- Make sure that the person delivering is also aware of all the elements involved.

### C. Post -delivery

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- Make the students aware of the specific skills developed during the lectures (particularly early on, the students are (rather) poor at making spontaneous, metacognitive links...

# **Mapping tools**

#### **Course Organiser/ Program Lead**

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	Core Course 1	Core Course 2	Core Course 3	Core Course 4
Skill 1	I, D	D, E, A	E,	E, A
Skill 2	I,	D, E		E, A
Skill 3	I,	D, A	E, A	E
Skill 4		I, D	E, A	
etc				

I = Introduced D = Applied and Developed E = Embedded A = Assessed (overtly or implicit)

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### Academic Staff input (on the basis of the material provided by the Course/Program organiser)

Course:		Academic Staff:		
Course Skill addressed	51		(optional) Centrality to the Course (Essential, Supportive)	