

	PAPER NO: EC.01(12)
Committee:	Educational Character Committee
Date:	1st February 2012
Subject:	Faculty Profiles
Author:	Executive Deans and Pro Deans
Executive sponsor:	PVC (Academic)/Executive Deans
Recommendation by the Executive:	Discussion and deliberation.

Executive summary

At its first meeting, the Educational Character Committee expressed a desire to have more information as to the nature and scope of each faculty. Attached are the submissions from the faculties, to (as far as possible) a common template and structure. The Committee is invited to discuss the extent to which they fulfil its requirements and make suggestions for improvement or augmentation as it wishes.

	Board/Committee	Date
Matter previously considered by:	N/A	
Further approval required?	N/A	

Communications – who should be made aware of the decision?	N/A
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Educational Character Committee

Faculty Briefing Pack: CONFIDENTIAL

1.1 Faculty: Business

1.2 Key staff

Executive Dean: Ms Jane Houzer

**Pro Deans: Professor Dilip Patel
Professor Geoff Elliot**

Department	Head of Department
Accounting and Finance	Mr Michael Knight
Business	Professor Jim Snaith
Management	Mr Milo Crummie
Informatics	Professor Fintan Culwin
National Bakery School	Dr John Marchant

2. About the Faculty

The Faculty of Business is one of four faculties within the University. It was formed in 2003 through a merger of the former Schools of Business and Computing. We were previously called the Faculty of Business, Computing & Information Management; we became the Faculty of Business in September 2009. The faculty has four academic departments: Accounting and Finance Management; Business and Informatics. The Faculty also hosts the University's National Bakery School.

We offer a wide range of courses in the areas of business, management, accounting & finance, and informatics. Many of our courses originated well before the formation of the Faculty, but thanks to our make-up we now have a rather unique blend of business and computing related expertise, and this has enriched all of our provision.

We have strong links with industry and the business world, and courses are constantly updated to meet new business and technological needs in the workplace. We have a strong partnership approach with relevant professional accrediting bodies, and new course development is often done in close alignment with their aims and objectives. We have a good record for the employment of our students. Successful graduates progress to a variety of careers in areas such as accounting, banking, human resources, marketing, public relations, software development, web development, management, and social enterprise. Many of our students work in the not-for-profit and public sectors, as well as the private sector and as self-employed.

We have longstanding partnerships with universities throughout Europe, Asia, and other parts of the world, and a truly international student body.

Department of Accounting and Finance

The Accounting & Finance Department is one of the largest academic departments in the University. The majority of academics' have experience as accounting and

finance professionals in industry and/or commerce and are, therefore, able to provide a reflective and practical context to the academic study of the subject area.

The department's staff work closely with professional bodies including the Consultative Committee of Accounting Bodies (CCAB), the Association of Chartered Certified Accountants (ACCA), the Association of Accounting Actuaries (ACA), the Institute of Chartered Secretaries and Administrators (ICSA), Institute of Internal Auditors (IIA) and Chartered Institute of Public Finance and Accountancy (CIPFA).

At postgraduate level the department offers degrees in:

MSc Accounting and Finance

MSc Corporate Governance

MSc International Accounting and Finance; International Finance; International Finance; International Finance and Banking; International Finance and Investment; Accounting and Financial Management

MSc Charity Accounting and Financial Management

MSc Management (Internal Auditing)

CIPFA Certification in Charity Finance and Accountancy

At undergraduate level the department offers degrees in:

BA (Hons) Accounting and Finance

BA (Hons) Professional Accounting

ACCA Professional Accounting

FdA Accounting

Department of Business

The department hosts our undergraduate business students. Our UG courses focus on the study of all aspects of organisations, their management and the changing external environment in which they operate, and are designed to prepare graduates for a career in business and management in all sectors. The courses offer the opportunity for students to study abroad during the first semester of the second year. The department has extensive links with institutions in Paris, Madrid and Valencia. The MSc International Business was one of the first of its kind in the UK, predating many MBAs, that started in Borough Polytechnic. It is currently one of the most international programmes in the University running in partnership with ABAC in Thailand and Loyola in India.

At undergraduate level the department offers degrees in:

BA (Hons) Business Studies

BA (Hons) Business Administration

BSc (Hons) Business Information Systems

Business Foundation Degree

At postgraduate level the department offers degree in:

MSc International Business

Department of Management

The Department of Management concentrates on delivering postgraduate courses in business the areas of Management, Business Administration, Public Administration, Charity/Voluntary Sector Management, Marketing and HR Management. The department's staff are a very experienced group with strong academic and

professional qualifications and experience in industry which gives them credibility for the courses that they teach. Many of the courses are developed in collaboration with professional bodies such as Charter Management Institute, Chartered Institute of Marketing and Chartered Institute of Personnel and Development.

All of the academic staff specialising in these relevant areas are housed in the Department of Management, and they therefore develop and deliver a significant portfolio of undergraduate modules on the general courses in the departments of Accounting & Finance and Business. The Department also has strong links with the Health faculty in delivering Management related CPD.

At postgraduate level the department offers degrees in:

MBA

DBA

MPA

MA International Management

MSc International Health Services and Hospital Management

Charity Management ICOSA Certificate

Certificate in Management

MA Marketing; Marketing Communication; Marketing Management; Digital Marketing; International Marketing

MSc Charity Marketing and Fundraising

MSc Human Resources; Human Resource Management; Human Resource Development; International Human Resources

Department of Informatics

The department offers undergraduate courses in the areas of Informatics, Business Information Technology and Computing, including Human Centred and Multimedia Computing. The Computing and BIT BSc Honours awards are recognised by the Chartered Institute for IT for full exemption from their professional examinations, and the HND awards for partial exemption.

The BIT courses explore the relationships between business and technology, people and technology, and people and business from the technical, cultural and economic points of view.

The central theme of the Computing courses is the design, development and implementation of software-based systems, in particular for the world of business and commerce. The courses include aspects of software engineering both as a subject in its own right and also as essential underpinning for the practical development of systems which takes place in procedural and/or object oriented programming environments.

At undergraduate level the department offers degrees in:

BSc (Hons) Business Information Technology; Business Intelligence; Human Centred Design

BSc (Hons) Computing; Computer Systems management; High Performance Computing; Multimedia Computing; Information Technology; Web Development

University Foundation Course

At postgraduate level the department offers degrees in:

MSc Information Systems management

MSc Information Technology

MSc Internet and Database Systems

MSc Managing Business Information Technology

National Bakery School

The National Bakery School, London South Bank University has enjoyed an excellent worldwide reputation in preparing students for careers in the baking industry for over a century. Founded in 1894, it is now the oldest bakery school in the world. Our access policy means that many young men and women, who might not otherwise have had the opportunity, are well placed to play major roles in the future development of the baking industry.

The School's reputation is international with many of its 'old' students becoming heads of bakeries throughout the world. The School's bakeries and testing laboratories are fully equipped and staffed to train current and future bakers.

At undergraduate level the school offers degrees in:

FdSc Baking Technology Management

BSc (Hons) Baking Technology Management

Research

The Faculty of Business supports research and academic scholarship across a wide range of disciplines within the business and computing domain. Knowledge transfer is a fundamental aspect of the Faculty's approach and philosophy to research and academic scholarship. It underpins our teaching programmes, and the student learning experience, and enables the Faculty to engage in a richer, and more informed, manner with business and external organisations in the public and private sectors of the economy.

The Faculty submitted to three Units of Assessment in the 2008 UK Research Assessment Exercise. The results published in December 2008 have revealed that 15% of our work in Library and Information Management has been assessed as being of a quality that is internationally excellent in terms of originality, significance and rigour. This rises to 20% in Business and Management Studies and 30% in Computer Science and Informatics, of which 5% has been rated as world-leading in both cases.

The Faculty has been successful in gaining external funding from a variety of sources including the UK research councils, the European Union, leading charitable research foundations and the UK government.

3. Key Information Set 2010/11

3.1 Financials

Income (total)	24,490,429
Income (overseas students)	4,752,017
Staffing costs (total)	10,576,136
OPEX	2,660,622
Space charge	2,526,353
Contribution (cash)	8,727,318
Contribution (% of income)	35.6%
Staff costs as a % of income	43.2%

BUSINESS Student numbers 2010-2011 - Faculty level

Students (headcount)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
UG FT	1,256	671	546	131	0	0	
UG PT	69	55	80	31	4	0	
PG FT	431	303	3	4	4	0	
PG PT	342	234	157	2	2	1	
Total	2,098	1,263	786	168	10	1	4,326
Overseas students	652	377	130	15	3	0	1,177
Research PG students							

Business Student demographics 2010-2011 Year 1 L4 (UG) and Year 1 L7 (PG) students

Faculty/Department	UG/PG	FT/PT	Female	Male	Asian	Black	African	Caribbean	Chinese	Not Known	Other	Refused	White	21 and under	22 to 24	25 to 39	40 or over
			Gender		Ethnicity								Age				
BU S	U G	F T	40 %	60 %	10 %	27 %	6 %	12 %	3 %	17 %	6 %	19 %	53 %	23 %	18 %	6 %	
BAF	U G	F T	41 %	59 %	15 %	25 %	5 %	9 %	2 %	21 %	6 %	16 %	56 %	21 %	19 %	5 %	
BBS	U G	F T	44 %	56 %	9 %	19 %	5 %	19 %	3 %	14 %	7 %	24 %	56 %	25 %	15 %	3 %	
BINF	U G	F T	25 %	75 %	13 %	41 %	9 %	2 %	4 %	18 %	3 %	11 %	35 %	29 %	28 %	8 %	
BM AN	U G	F T	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
BN BS	U G	F T	88 %	12 %	0 %	56 %	20 %	0 %	0 %	0 %	4 %	20 %	12 %	4 %	12 %	72 %	

BUS	U G	P T	70 %	30 %	1 %	35 %	14 %	3 %	3 %	6 %	4 %	33 %	4 %	14 %	54 %	28 %
BAF	U G	P T	72 %	28 %	3 %	42 %	14 %	65 %	3 %	6 %	3 %	25 %	3 %	8 %	53 %	36 %
BBS	U G	P T	67 %	33 %	0 %	22 %	11 %	0 %	4 %	7 %	7 %	48 %	7 %	26 5	52 %	15 %
BINF	U G	P T	67 %	33 %	0 %	50 %	33 %	0 %	0 %	0 %	0 %	17 %	0 %	0 %	67 %	33 %
BMAN	U G	P T	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A
BNBS	U G	P T	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A

Faculty/Department	UG/PG	FT/PT	Gender		Ethnicity								Age			
			Female	Male	Asian	Black	African	Caribbean	Chinese	Not Known	Other	Refused	White	under	22 to 24	225 to 39
BUS	P G	F T	44 %	56 %	14 %	16 %	0 %	14 %	16 %	13 %	5 %	22 %	2 %	29 %	64 %	5 %
BAF	P G	F T	38 %	62 %	13 %	28 %	1 %	13 %	18 %	7 %	8 %	12 %	0 %	23 %	66 %	11 %
BBS	P G	F T	46 %	54 %	18 %	4 %	0 %	17 %	14 %	14 %	4 %	31 %	4 %	40 %	55 %	1 %
BINF	P G	F T	34 %	66 %	13 %	23 %	0 %	30 %	11 %	11 %	6 %	6 %	2 %	26 %	66 %	6 %
BMAN	P G	F T	50 %	50 %	13 %	13 %	1 %	7 %	18 %	17 %	4 %	27 %	1 %	26 %	69 %	3 %
BNBS	P G	F T	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A

BUS	P G	P T	59 %	41 %	8 %	19 %	9 %	1 %	2 %	5 %	5 %	52 %	0 %	1 %	59 %	39 %
BAF	P G	P T	62 %	38 %	5 %	22 %	3 %	3 %	1 %	2 %	8 %	57 %	1 %	1 %	53 %	45 %
BBS	P G	P T	36 %	64 %	14 %	14 %	0 %	0 %	0 %	7 %	0 %	64 %	0 %	0 %	79 %	21 %
BINF	P G	P T	41 %	59 %	18 %	41 %	12 %	0 %	0 %	12 %	6 %	12 %	0 %	0 %	59 %	41 %
BMAN	P G	P T	60 %	40 %	9 %	16 %	13 %	0 %	3 %	6 %	3 %	51 %	0 %	2 %	61 %	37 %
BNBS	P G	P T	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A	N/ A

3.4 BUSINESS Retention and Progression

Department	UG FT L4	UG FT L5	UG FT L6	UG FT L6
	Year 1	Year 2	Year 3	Year 4
	2010-2011	2010-2011	2010-2011	2010-2011
	Progress	Progress	Award	Award
Accounting and Finance	67%	76%	90%	N/A
Business Studies	42%	73%	82%	87%
Informatics	44%	44%	83%	82%
Management	N/A	N/A	N/A	N/A
National Bakery School	N/A	N/A	72%	N/A
Faculty Average	48%	70%	86%	84%

Department	PG FT Yr 1	PG FT Yr 2
	2010-2011	2010-2011
	Award	Award
Accounting and Finance	26%	90%
Business Studies	21%	91%
Informatics	17%	88%
Management	12%	93%
National Bakery School	N/A	N/A
Faculty Average	19%	91%

3.4.1 Top 10 Faculty course years for progression and retention (best first)

Department	Course	Level	Progression Rate
1. Management	MA Marketing	7	100%
2. Accounting & Finance	BA (Hons) Professional Accounting	4	100%
3. Business Studies	MSc International Business (PT)	7	100%
4. Informatics	MSc Information Systems Management	7	100%
5. Accounting & Finance	MSc/PGDip Charity Accounting And Financial Management	7	100%
6. Informatics	MSc Managing Wireless Information Systems And Information Technologies (FT)	7	100%
7. Accounting & Finance	MSc Charity Marketing And Fundraising	7	100%
8. Informatics	MSc Information Technology	7	100%
9. Informatics	BTEC HND Computing	4	100%
10. Accounting & Finance	PGCert International Finance Banking & Investment	7	100%

3.4.2 Bottom 10 Faculty course years for progression and retention (worst first)

Department	Course	Level	Progression Rate
1. Accounting & Finance	CIPFA Certificate In Charity Finance & Accountancy	7	44%
2. Informatics	BSc/BSc (Hons) Computing Studies	4	43%
3. Business Studies	Foundation - University Foundation Programme	4	42%
4. Management	Certificate In Management Cm.1.1.1 - Open/Oct/Ptdr	6	41%
5. Informatics	Foundation Degree In Business Information Technology	4	38%
6. Informatics	BTEC HND Computing	4	37%
7. Informatics	BSc/BSc (Hons) Computing - Foundation Year	4	36%
8. Accounting & Finance	MSc/PGDip Corporate Governance	7	35%
9. Informatics	BSc (Hons) Multimedia Computing -Topup	4	33%
10. Informatics	BSc (Top-Up) E- Business IT	4	33%

4 National Student Satisfaction 2011 [one table for each discrete JACS code area]

JACS Subject Area	2011 Sector Benchmark	2011 score achieved at LSBU	Variance from Benchmark
Accounting and Finance			
Teaching	N/A	86	

Assessment & feedback	N/A	69	
Academic support	N/A	76	
Organisation & management	N/A	87	
Learning resources	N/A	82	
Personal development	N/A	87	
Overall satisfaction	N/A	90	

JACS Subject Area Business	2011 Sector Benchmark	2011 score achieved at LSBU	Variance from Benchmark
Teaching	N/A	80	
Assessment & feedback	N/A	67	
Academic support	N/A	71	
Organisation & management	N/A	76	
Learning resources	N/A	80	
Personal development	N/A	87	
Overall satisfaction	N/A	85	

JACS Subject Area Informatics	2011 Sector Benchmark	2011 score achieved at LSBU	Variance from Benchmark
Teaching	N/A	74	
Assessment & feedback	N/A	68	
Academic support	N/A	63	
Organisation & management	N/A	72	
Learning resources	N/A	83	
Personal development	N/A	81	
Overall satisfaction	N/A	77	

JACS Subject Area National Bakery School	2011 Sector Benchmark	2011 score achieved at LSBU	Variance from Benchmark
Teaching	N/A	76	
Assessment & feedback	N/A	61	
Academic support	N/A	67	
Organisation & management	N/A	35	
Learning resources	N/A	83	
Personal development	N/A	65	
Overall satisfaction	N/A	44	

4.1 National Student Satisfaction 2011: best and worst areas against category benchmark

NSS Category	Area with best variance against benchmark	Variance	Area with worst variance against benchmark	Variance
Teaching	N/A		N/A	
Assessment & feedback	N/A		N/A	
Academic support	N/A		N/A	
Organisation & management	N/A		N/A	
Learning resources	N/A		N/A	
Personal development	N/A		N/A	
Overall satisfaction	N/A		N/A	

5. Employability – 2011 DLHE data

Department	Full-time paid work only	Part-time paid work only	Voluntary/ Unpaid Work only	Further Study only	Assumed to be unemployed
Acc& Fin	26.5	13.3	3.6	19.3	24.1
Business	30.8	13.3	2.0	13.3	26.5
Informatics	32.4	16.2	0.0	16.2	24.3

Sample size too small to make objective judgements

5.1 10 course with lowest assumed unemployed figures (best first)

Department	Course	% Assumed to be unemployed
Informatics	BSc(Hon) Computing FD year	0.0
Business	BA (Hon) Marketing	15.4
Acc& Fin	BA(Hon)Accounting(Top up)	20.0

Acc & Fin	BA (Hon) Accounting and Fin	24.7
Business	BA (Hon) Bus Admin	25.6
Business	BA (Hon) Bus Man	27.3

Sample size too small to make objective judgements

5.2 10 courses with highest assumed unemployed figures (worst first)

Department	Course	% Assumed to be unemployed
Informatics	BSc (Hon) BIT	40%
Business	BA(Hon) Soc Pol and HRM	40%

Sample size too small to make objective judgements

6. Outlook for the Faculty

Vision

Our ‘formal’ vision or mission statement is:

To become the professional Faculty of Business that understands the real/practical world of business and management -- developing skills and enhancing professionalism of people (and organisations) at all stages of their career.

The perspective of the Deanery (Dean, Pro-Dean Academic and Pro-Dean External) at this point is that BUS should be a distinguished and distinguishable player in the UK Business School landscape, well known for providing -- and a leading place to come to for three things:

- 1) Good- value general purpose business-skills related UG education:
 - rooted in our central London community,
 - maximising our students’ success by concentrating on turning out students with appropriate and relevant qualifications and accreditations,
 - who are work- ready and well- prepared to succeed as competent practitioners across all categories of employers

- 2) Excellent standard of selective PG qualifications and awards, focussing on:
 - Specific professions within business in conjunction with our key professional accrediting bodies (mainly suite of MSc’s relating to professional activity or the professions such as HR, Accounting etc.)
 - PS/NFP /PS, (**our differentiator**) building on our strength of sectoral and nationality diversity amongst our students,
 - Develop, internationalise and integrate as far as possible our 3 flagship general PG degrees: MBA/MPA/ DBA.
 - Applied research and scholarly activity developed with clear goal of 1) providing profile in the market and 2) underpinning the PG curriculum

3) Source and provision of teaching expertise on all “management” and business related teaching throughout the University whether in Arts, Engineering, Health, as partners with other Faculties.

Configuring the Landscape

Subjects

General, all- purpose UG business education means maintaining sufficient teaching quality across all areas of the business curriculum, including business related systems.

The selective areas to develop and really go for building a distinguished presence, to achieve the vision, focus our PG resources, and to continue to strengthen the UG curriculum too are, in our INITIAL view:

- 1) Definitely: Accounting; Human Resources; Management/Strategy; International Business;
- 2) Possibly: Marketing, Finance and Business IT.
- 3) Probably not: Computing; IT Architecture; Information Assurance; Crime Science; Corporate Governance; Small Business Enterprise

Law and Leisure & Tourism, as professionally focussed fields might well make to be re-located into the Business Faculty.

We do not believe that other niche areas where we do not do much currently should be developed in this sense, although they do need to be included in our general UG business education framework, e.g. Sustainability and Ethics and Social Entrepreneurship.

Alignments

Of equal importance to which subject areas to focus on is the “for whom”. BUS needs to move away from the pack with its clear identification with NFP and PS, and the areas of the Private Sector that align or work directly with them. Therefore the move from small business /SME market towards social enterprise/entrepreneurship. A real strength is that our professional MSC’s have students attending from all three sectors, which is not the case elsewhere, and this should also be exploited in the non degree bearing activity of the Faculty.

Modes

We do not believe that remote or e-learning/delivery of awards should be our key focus of investment, or what we are “known for” as the barriers of entry are very high. However flexibility should be emphasized. Therefore mixed methodologies, formats of deliveries, interaction technologies, pace of delivery (block delivery, full, part time) etc. should be part of the armoury, and flexibility a cornerstone of delivery. For example, we would like to be in a position to provide large UG degrees in at least 4 ways: two year intensive, 3 year full time; 4.5 year intensive part time (by combining normal part time delivery, with intensive block delivery) or 6 year part time! With the new fees regime, allowing for loans for part-timers, we must develop this aspect of choice and flexibility, and ability to transfer across various “speeds” as a matter of urgency. This is an opportunity to move ahead of the pack, ending demarcations between FT and PT in the UG context. This will require infrastructure solutions at University level.

The Student Cohort

At UG we need to improve student quality by continuing to upgrade entry requirements, and to attract a wider and more international cadre through flexible delivery.

At PG we need focus on delivering excellent provision in high quality surroundings to current or budding professionals in our key selective fields of activity.

We need to develop our cohort into a strong, engaged, and supportive alumni group.

The Faculty (Academic Staff)

We need to reconfigure our Academic staff in order to have: Professorial level staff in our key selective subject areas; a significant percentage of staff with doctorates; regular turnover of post-doctoral teaching fellows and “L” grade staff at the start of their careers. This will lead not only to excellence in teaching but strong output of scholarly activity and externally recognised profile in our chosen areas.

We need to rebalance and recalibrate towards early and mid-career academics. We have too many end-career (top of scale) academics, whatever their grade.

This will be very challenging to achieve as long as our ranking remains low. It is very difficult to attract strong early/mid career scholarly staff in these circumstances.

Success

We will be successful if:

- 1) A significant proportion of our undergraduates go on to decent jobs, and employers are keen to come and engage with our students due to their quality, their diversity, and their “well- preparedness”
- 2) We are “first choice” amongst post 92 London universities for students wishing to further their professional careers and accreditations through the study at PG level in our chosen key subject areas, both nationally and internationally, and we are recognised and respected by the respective industries / professional bodies/media etc for this
- 3) We are the first port of call for institutions in the Public sector; NFP sector and related private sector requiring any up-skilling, “change management”, or related expertise
- 4) We successfully achieve a business school accreditation (AMBA or EPAS)

Jane Houzer
Executive Dean

Faculty Briefing Pack

1.1 Faculty: **Engineering, Science and the Built Environment**

1.2 Key staff

Executive Dean: Professor Rao Bhamidimarri

Pro Dean Academic: Philip Lockett

Director Research and Enterprise: Vacant

Department	Head of Department
Applied Sciences	Mandy Maidment (Acting)
Built Environment	Martin Lake
Engineering and Design	Professor Marouan Nazha
Urban Engineering	Dr David Tann

2. About the Faculty

The Faculty of Engineering, Science and the Built Environment brings together LSBU's long established strengths in engineering and the Built Environment sectors with a strong record of employment focused academic programmes and industry relevant research and development.

The Faculty with over 6000 students and 250 (FTE) academic, technical and research staff and an annual budget of over £35 million is one of the largest academic centres in engineering & technology and the built environment disciplines in the sector.

The Faculty is committed to developing and delivering professionally focused and financially viable academic programmes that are professionally accredited to meet the current and projected needs of industry and business. Our portfolio is relevant and accessible through a range of pathways. Our part-time provision has been particularly successful and supports a diverse range of industries and businesses.

We will continue to build on the student support measures which we initiated in recent years to achieve a step change in the learning and teaching support as well as the personal development support provided to students.

The Faculty's academic programmes attract a strong intake and the graduate starting salaries are amongst the highest in the sector. Whilst the retention and progression, and full-time student employability have been improving, they are still lower than the benchmarks. Therefore, the Faculty is taking steps to address these and to improve student satisfaction.

We recognise that the graduate employability will be critical in maintaining healthy student recruitment in the future. We initiated an enterprise education programme to foster confidence and enterprise in students by introducing curriculum to enhance design, business, communication and other transferable skills in order to give our graduates a competitive advantage in the job market. We will build on these,

capitalising on the recently established Nat Puri Institute for Engineering and Enterprise.

Our research and knowledge transfer portfolio is broad and includes consulting, knowledge transfer in particular through KTPs and associated CPD. Our General Engineering did well in the last round of RAE. Through a number of new appointments made following the last RAE submission, the Faculty looks to submit a stronger REF bid in 2013.

The Faculty has undergone a strategic repositioning in terms of its provision, structure and people over the last three years and is well placed to meet the challenges ahead with confidence.

Academic Departments

Department of the Built Environment Head of Department: Martin Lake

The Department aims to be the leading UK University in the provision of professional opportunity in the area of the Built Environment, offering a wide range of professionally accredited courses, utilising our London location.

Operationally our courses are grouped into three programme areas which are primarily linked to industry based professional bodies:

- School of Architecture – courses accredited by the Royal Institute of British Architects (RIBA);
- Undergraduate Centre for Property, Surveying & Construction – courses accredited by the Chartered Institute of Building (CIOB), Royal Institution of Chartered Surveyors (RICS) and the Chartered Institute of Architectural Technologists (CIAT); and
- Postgraduate Centre for Property, Surveying & Construction – courses accredited by the Royal Institution of Chartered Surveyors (RICS). One course is also accredited by the Association of Project Managers (APM).

All courses are accredited by at least one professional body.

The Department is characterised by its commitment to a broad range of discipline specific courses which are integrated as much as possible to reflect the growing nature of multi-disciplinary work in the built environment. We are also proud of providing students with a “ladder of opportunity” from HNC and Foundation Degrees through to a range of Masters’ courses, as well as research supervision to MPhil and PhD.

There are some 1,600 students enrolled on our courses of which 52% are part-time, most of whom are sponsored by industry. Some 35% of our students are postgraduate and our PG Centre in PSC is one of the largest in the country. Last year the Department made 440 awards to Home/EU students which accounted for 11.0% of all those made by LSBU. Of these 94.3% were employed (or continuing in higher education).

The Department employs 41 teaching staff on permanent contracts and makes significant use of guest lecturers from industry to provide students with an up-to-date view on the latest market developments. We have an active alumni network, particularly in the real estate area, where they make a valuable contribution to our teaching. Our Real Estate Society has been running an annual event for many years entitled “Lives in Property” which seeks to provide a networking opportunity for both current students and LSBU alumni – well over 100 people attended the last event.

The Department has recently established the Built Environment Research & Enterprise Centre (BEREC) as a vehicle to coordinate research and enterprise activities. We have identified three areas of potential activity where we think our key strengths can be leveraged to improve the student experience and to deliver growth:

1. Building Information Modelling (BIM) Centre – designed to build upon the multi-disciplinary opportunity provided by a broad based Department which can link together architecture, construction and surveying in an area that is likely to see significant change as to how buildings and infrastructure assets are developed and managed in the UK.
2. London Institute for Real Estate (LIRE) – designed to be an executive education and training centre focussed on real estate and funded through alumni backing.
3. Innovation and the Built Environment Academy (IBEA) – a virtual entity designed to raise the external profile of the Department and the University. The first international conference of IBEA was held in October 2011 and this has been followed by a series of research workshops.

As well as building a research based enterprise business the Department is seeking to utilise the knowledge and expertise acquired through BEREC to develop an enhanced portfolio of Masters’ courses.

Medical Architecture Research Unit

Medical Architecture Research Unit (MARU) established over 35 years ago has a vision to explore the interface between health service organisational culture and the built environment response both in the UK and internationally. MARU runs the MSc Planning Buildings for Health programme which brings together professionals from a variety of disciplines such as architecture, nursing, health planning and engineering who are working in the planning, design and procurement of buildings for health care. The course is delivered in six 5-day modules which together with the dissertation build up to the Masters Degree. All units are accredited by Royal Institute of Chartered Surveyors for Project Directors, Project Managers, Engineering, Design and Planning Leaders. MARU has an active alumni provide which both contributes to the teaching programme and allows MARU to maintain close links with industry.

MARU also runs bespoke master classes and short courses, two recent examples being business case writing and clinical planning with a focus on public private partnerships.

To date research areas for MARU have been varied ranging from organisational change to art and architecture in acute hospitals through to infection control strategies.

For more information on MARU's work please visit www.lsbu.ac.uk/maru

Construction Economics Research Group

Professor Herbert Robinson

Construction management and economics is a well established research group in the Department of the Built Environment. The group's work focuses on a range of topics to address problems, challenges and issues found in the modern and global construction industry to improve the management of the supply chain and the performance of construction projects.

Research expertise and interests have focused on a number of interrelated themes central to construction economics such as improving construction site productivity and processes to eliminate waste, innovation and knowledge management to improve business performance, infrastructure investment to support economic development, health and safety on construction, complex procurement systems such as private finance initiative, public private partnerships, partnering, and comparison of the UK and French construction industry. Other themes include social networks, managing human error in construction failures and defects, and applying technology to satisfy the needs of elderly people with disabilities, the development of a novel approach to optimise heavy plant and equipment selection for open cast mining and major earthmoving operations, performance measurement in engineering and construction organisations and inter-firm linkages and employment creation in urban regeneration and infrastructure projects.

Work conducted on error pathology in a project context, has led to an improved understanding of the impact and performance of managerial factors and the systemic nature of error occurrence on house-building projects. Staff are also involved in interdisciplinary research carried out with other groups such as Medical Research and Architecture Unit (MARU). Recent examples include the project on briefing and design to reduce hospital acquired infection in the ward environment funded by EPSRC as part of the Health and Care Infrastructure Research and Innovation Centre (HaCIRIC) research programme.

The research work undertaken by staff is critical in underpinning our teaching activities and stimulating students in our well respected range of taught programmes such as the PgD/MSc in Quantity Surveying and Building Surveying, MSc in Construction Project Management as well as the MPhil/PhD research degree in Construction Economics. We are increasingly attracting students from a range of background including international students on our MPhil/PhD research degree programme. Recent research completed by PhD students include, for example, influence of culture on construction project management practices in the Middle East and relationship networks and knowledge sharing at the appraisal development stage in Thailand. Other on-going PhD research projects include major capital investment and approval processes in healthcare projects in UK, facilities management of healthcare infrastructure in developing countries, Basel framework and operational risks in Bank financed infrastructure projects in Eastern Europe and whole life cycle costing in construction.

Department of Engineering & Design
Head of Department: Professor Marouan Nazha

The Department of Engineering and Design is prepared to meet the challenges resulting from the change in HE funding. A number of actions have been set in motion to ensure that the department has the right portfolio of courses delivered in the appropriate way. These actions include improved links with employers to ensure continuing relevance of our programmes and enhanced employability of our graduates. The provision is continuously reviewed and modernised. New areas are being considered for growth. These include a new drive to grow the Mechtronics and Robotics into a new Electro-Mechanical subject area. Bio-Engineering is also under consideration for growth. A Foundation degree in Clinical Technology has just started this year and the Department is in the process of validating a new master programme in Bio-Medical Engineering.

The Department of Engineering and Design provides students-focused education that is high in quality, distinctive in provision, flexible in delivery and accessible to the wider community. Product focused engineering, innovative design, professional excellence and industrial practice form the core of the Department's educational offering. This offering includes courses at undergraduate and post graduate levels in Mechanical, Electrical, Electronics, Mechatronics, Telecommunications, Design and Computer Engineering. All BEng courses are fully accredited by the appropriate institution as fulfilling the academic requirement for Chartered Engineer (CEng) status. Approximately 1100 students (30% of whom are part time) are enrolled on these courses. The Department also provides service teaching in fundamental engineering subjects (such as mathematics, control, electrical services and design) to students on courses in other departments. In addition to the Head of Department there are 37 full-time and 3 part-time academic staff (7 of whom are professors). These are supported by 14 technicians and a varying number of hourly paid lecturers and researchers.

The Department of Engineering and Design has the most up-to-date facilities comprising of engineering workshops, laboratories and studios used by a wide range of engineering and architecture students across the Faculty. These facilities include: mechanical workshops (milling, turning, welding ..etc), rapid prototyping, design and modelling studios, new media technology, multi-media laboratories, electrical power (AC & DC machines), electrical engineering laboratories, telecommunications and networks laboratories, control and robotics, microwave and optical fibre, analogue and digital electronics, Printed Circuit Board (PCB) workshops, metal fabrication and surface engineering. Undergraduate, postgraduate, project and research students and staff use these facilities for training, developing, making and testing as well as undertaking major research projects, consultancies and income generating activities.

Research and enterprise activities are valued by the Department of Engineering and Design. These have been organised in three main groupings: Sustainable Energy and Materials Research Group, Mechatronics, Robotics and Non-Destructive Testing Research Group and Bio-Medical Engineering and Communications Research Group. Each group is led by a professor of standing in the field. Academic staff are encouraged to be active members of one of these groups and to undertake research and enterprise activities to advance the Department standing and reputation as well as generating income through research grants and enterprise activities.

Centre for Robotic Non Destructive Testing

Director: Professor Tariq Sattar

This is a strong teaching and research area in the department of Engineering and Design which the department plans to grow into a niche area offering new multi-disciplinary courses in electrical, mechanical and computer engineering based on its provision at undergraduate and postgraduate levels. The department is participating in a new European TEMPUS programme with German, Egyptian and Jordanian universities to develop MSc programmes in Mechatronics and will use this as a platform to develop its own provision.

The research that underpins the teaching and student project work in this area is carried out by the Centre for Automated and Robotic NDT which has been a pioneer in the development of Robotic NDT with some of the World's first developments of wall climbing and swimming robots with applications to industrial inspection in the petro-chemical, nuclear and transportation industries. These robots provide access to very large safety critical structures located in hazardous environments. This work has received seven awards for industrial robot innovation between 2004-11 from the International Journal of Industrial Robot and their Applications.

The research has been used by the Royal Society and the Royal Academy of Engineering in their activities to promote science and engineering. The research was one of 26 cutting edge research exhibits competitively selected by the Royal Society and was exhibited from 25 June to 4 July 2010 at the Summer Science Exhibition to celebrate the 350th anniversary and convocation of the Fellows of the society. The exhibit titled "Robot Detectives: Sherlock Holmes meets Spiderman" had a high media impact. The Royal Academy of Engineering (RAE) selected this research as a centre piece for its zone at the Big Bang 2011 Engineering Fair in March 2011 at the ICC Excel Centre, London, and in 2010 to show case innovative research to the lay public during the Story of London Innovation week, London Festival, organised by the Mayor of London. The RAE has also used the research to promote engineering to schools with the "Walking with Robots" programme in 2009-10.

The research group raises awareness of the use of robots to reduce turn-around time during planned power outages in the power Industry as invited expert panel speakers at conferences on "Effective Planning and Optimizing Execution of Major Outages", e.g. Amsterdam 2010, Madrid 2009. It has contributed two keynote lectures to international conferences and a leading viewpoint article for the special journal issue on NDT Robots.

A new research group was formed in 2011 to intensify research in this area which comprises of one professor and six academic staff. One staff is a recent president of the British Institute of Non-Destructive Testing and a new staff member has expertise in medical robotics. Five PhD research students are currently engaged in research into mobile and wall climbing robots, particle filter optimization, and underwater inspection of critical structures. Three new part-time PhD students sponsored by a company are in the process of enrolling. It currently has two visiting researchers. This research group owns and teaches all the modules on control engineering to the Faculty engineering courses and delivers modules on Robotics, Mechatronics, Mechanical and Electrical Engineering. The group has developed and services two large teaching laboratories (control, robotics) which are used by the Faculty and two research laboratories for its Robotic NDT work.

Photovoltaic Research Centre Professor Hari Reehal

The Earth receives enough sunlight in one hour to meet the world's entire energy needs for a whole year. Tapping into this limitless and CO₂ - free resource is an obvious route to countering global warming. Photovoltaics (PV) is the technology used to convert sunlight into electricity. However, doing this efficiently and cheaply has proved to be challenging. Although, the market for solar PV power generation has been growing rapidly at a rate of nearly 50% per year over the period 2005-2010, PV deployment needs to expand considerably to make a really significant impact on the global scale (worldwide PV capacity was about 40 GW in 2010) . Not only does the cost of PV have to come down further but the efficiency of converting sunlight into electricity needs to be increased.

Photovoltaic power generation employs solar panels which are composed of a number of solar cells connected together. Crystalline silicon is the material most widely used in cell manufacture. However, the cells are expensive due to the amount and high quality of material needed and they convert only 15 - 20% of sunlight to electricity. Our research is aimed at developing new cheaper forms of crystalline silicon and increasing cell efficiency.

For lowering cost, we are developing processes to reduce the amount of silicon used to make the solar cell by a factor of about 100. This is done using chemical vapour deposition to coat sheets of glass with films of silicon about one thousandth of a mm thick. We have successfully demonstrated high quality crystalline silicon thin films on glass with funding from EPSRC and in collaboration with industrial partners such as BP Solar. Solar cells based on this approach have shown promising efficiencies of about 10% so far with the potential to take this figure to the level of conventional cell efficiencies but at reduced cost. Our approach to increasing efficiency is based on nanostructuring the silicon layers and engineering new cell designs. One concept we are working on is nanowire cells which consist of a vertical forest of nano-scale silicon wires grown on glass. This design enables the light falling on the cells to be trapped and captured much more effectively, thereby increasing efficiency. The work is being funded by EPSRC as part of the Supergen PV-21 programme which is a consortium of nine university and seven industrial partners, including Pilkington.

In a separate project we are working in collaboration with Professors Gawne and Bao in the area of surface engineering of roof tiles. We shall be developing a technology for growing thin film silicon solar cells on the tiles for building integrated PV which is a rapidly growing area.

We have attracted significant funds for research and equipment exceeding £3M in value since 1995 from bodies such as EPSRC, HEFCE, Leverhulme Trust, DTI, and Industry. This has enabled us to establish state-of-the-art experimental facilities and carry out leading edge research. As a result we have built strong collaborative links with leading external research groups in academia and industry, both nationally and internationally. Our facilities include a comprehensive range of chemical and physical vapour thin film growth equipment housed in a specially constructed clean room laboratory for solar cell fabrication. This is supported by sophisticated analytical techniques such as electron and atomic force microscopies, Raman spectroscopy, etc for materials characterisation. Specialist opto-electronic techniques exist for solar cell testing. To date there have been 10 PhD and 1 MPhil completions. The current team includes 1 research assistant, 5 full and part-time PhD students and 1 Masters research student. PV research feeds directly into teaching through taught Masters level lectures and projects and final year undergraduate projects. Professor Reehal plays an active role in the PV research community nationally and internationally

through publications and invited talks, serving on scientific and professional committees and advisory panels, conference organisation and peer review.

Surface Engineering

Professor David Gawne and Professor Yuqing Bao

The research in surface engineering is directed at creating and characterizing new types of materials, powders and coatings, particularly for improving energy efficiency by developing more efficient processes and longer-life products. Much of the work focuses on understanding and modelling the mechanisms of coating deposition together with the associated evolution of structure and properties. Our experimental facilities include plasma-spraying, electrostatic spraying, polymer-blending and sol-gel processing. Current research includes developing a more energy-efficient and environmentally acceptable alternative to painting, hybridizing recently developed low-temperature phosphate glasses with compatibilized polymers to create novel hybrids with potentially new combinations of properties previously unobtainable in plastics, specialized glass interlayers to enable thin-film solar cells on buildings and more energy-efficient, anti-microbial surfaces for food processing. We are also working in nanotechnology and, in particular, developing a flame-pyrolysis process for manufacturing complex inorganic nano-particles for potential applications including catalysts for automotive exhaust systems, high-performance lithium ion batteries and hydroxyapatites for prosthetics. We have recently started a 2.3 million euro grant from the the European Commission on the manufacturing and applications of nanostructured materials. We are currently collaborating in research projects with Eindhoven University, Coimbra University, Brunel University, Arkema SA, Active Space Technologies Lda, Wirebelt Ltd and Advanced Composites Ltd.

Department of Urban Engineering Head of Department: Dr David Tann

The Department of Urban Engineering aims to be recognised as a first class, dynamic department with a distinctive approach to learning and teaching, applied research and enhanced student experience. We are proud of our rich heritage, the very first building services engineering HE course was established at the then National College – one of the predecessors of the Department, in 1948. We will continue to provide high quality, industry-relevant undergraduate and postgraduate engineering programmes in all urban environment related subject areas including acoustics, building services, civil, energy, structural and transport engineering. We will help all our student develop their full potential, and equip them with the latest knowledge and skills that are sought after by the employers. Currently the Department has 1072 fully enrolled students (745 FTE), studying on various courses listed below (of all our students, 65% are part-time; 16% postgraduates; and 7.5% overseas):

HNC:	Civil Engineering; Railway Civil Engineering.
HND/FdSc:	Building Services Engineering.
BSc:	Architectural Engineering; Building Services Engineering; Civil Engineering.
BEng:	Building Services Engineering; Civil Engineering.
MSc:	Civil Engineering; Building Services Engineering; Sustainable Energy Systems;

Environmental and Architectural Acoustics; Structural Engineering;
Transport Engineering and Planning.

MPhil/PhD: Research in air conditioning, energy and structural engineering.

In addition to our purpose-built, first class laboratory facilities, we have the most important ingredient of success - an excellent, highly qualified team to deliver the University's corporate strategy – by putting the students first and ensuring their success. We have 21.5 full-time permanent academic staff members (80% of whom have a directorate degree and over 60% are chartered engineers); 7 technicians and 20 research fellows and assistants. In addition, there are 24 part-time lecturers and senior industrial practitioners who contribute to our academic deliveries. An appreciable number of our academics are also contributing to industry by actively participating in applied research and professional institutions' activities, with some heading their respective national institution or regional branches. The annual budget turnover in the Department is just over £6m including public, industry and European funded research projects. All our courses are fully accredited by the relevant professional bodies at the appropriate level. The Department enjoys strong links with the construction and building services sectors, with approximately 700 of our students being on part-time study mode, funded by their employers in industry.

Our civil engineering student teams have won highly acclaimed national structural steel design competition prizes three times in the last five years; while our building services engineering researchers have won a number of prestigious national and international prizes. Dr Ina Colombo, a research fellow at the Department's Centre for Air Conditioning and Refrigeration, was shortlisted at the end of 2011 for the "THE project of the Year" award, for her innovative research work to develop a practical and low carbon solution for cooling and heating systems used for supermarket applications such as food display cabinets and cold rooms. Our research projects are geared up to solving practical problems for industry; many academic staff are engaged in Knowledge Transfer Partnership projects, working closely with organisations such as London Underground, British Blinds and Shutter Association, Tesco and Asda supermarkets. In the summer of 2010, the £3m state-of the-art Centre for Efficient and Renewable Energy in Buildings (CEREB www.cereb.org.uk) was established in the Department to provide training and educational opportunities for the communities we serve, and also to enhance the academic deliveries, incorporating the efficient energy management and sustainable development themes into the engineering syllabus.

The Department enjoys a robust financial outlook with good course profitability for all our programmes. We will continue our successful path and look forward to enhancing our many strengths and growing in the international student recruitment activities over the next three years.

Centre for Efficient and Renewable Energy in Buildings ([CEREB](http://www.cereb.org.uk))
Acting Director: Dr Alan Dunn

The mission of the Centre is the decarbonisation of buildings through excellence in research, education, and technology transfer.

Located at roof level of the new London South Bank University teaching facility K2, CEREB is an inspirational and unique, teaching, research and demonstration resource for the built environment. It showcases different renewable and low carbon energy solution for which detailed performance data is captured and used for teaching and research.

CEREB uses ground source heat pumps for heating and cooling the K2 building, LSBU's new teaching facility, and solar thermal collectors to provide hot water. The centre has additional technology including solar fibre optic lighting, solar panels, phase change materials, absorption water chiller for cooling, LED lighting systems and a weather station, which is crucial for researching the technology.

CEREB has been developed in partnership between London South Bank, City and Kingston Universities with funding from the Higher Education Funding Council for England (HEFCE), the London Development Agency (LDA) and M&E Sustainability. All three partner universities are leaders in education and research in built environment. Through CEREB students are exposed to the technologies which the built environment needs to embrace in order to provide sustainable buildings for the future. Students have timetabled access to the Centre for modules on their related courses.

We are now an established centre of excellence for the provision of CPD training for professionals in the Building Services Industry whether they are facilities managers, project managers, quantity surveyors, mechanical and electrical engineering consultants, architects or planners on understanding of how to design, operate and manage new and emerging low and zero carbon technologies.

All the systems in the building are monitored and the data is available to students and researchers via web interfaces that will allow it to be used for collaborative research worldwide. We currently have a number of short and long term research projects with industry including monitoring studies of local wind turbines performance and post occupancy evaluation of low carbon dwellings.

CEREB aims to become a global urban hub for training and research of low carbon technologies and to develop partnerships for accessing performance data from a wide range of other installations around London and beyond.

Centre for Air-conditioning and Refrigeration Research - CARR Professor Graeme Maidment and Professor Judith Evans

The Centre for Air Conditioning and Refrigeration Research (CARR) at LSBU has national and international rated expertise in the field of refrigeration and air conditioning (RAC) and their sub sectors. The centre currently has a total funding of £1.77m and a strong team of 20 researchers with a variety of experience and expertise covering areas in heat and cooling, refrigeration, retail display, life cycle environmental impact, packaging, food processing, energy resources and tri-generation.

The Centre's strategy is to focus on sustainability and develop knowledge, tools, skills and technology to enable the RAC industry to reduce its environmental footprint. Sustainability and climate change are the Centre's key driver. The RAC

sector is huge with £100B of revenue worldwide and is responsible for 10% all greenhouse gas emissions through energy used and direct emissions due to leakage of potent greenhouse gas refrigerants. In the UK, the climate change bill requires an 80% reduction in carbon emissions by 2050 and this will require large scale reductions in carbon emissions across all sectors. The RAC sector will need to reduce its emissions proportionally, at the same with a warmer climate, there will be a tendency to increase RAC use and with it, its carbon footprint.

The Centre's approach is to collaborate with both industry and academic partners, actively engaging in a range of research and enterprise activities. The Centre has a significant portfolio of research grants funded by the UK Engineering and Physical Science Research Council, the European Commission and the UK Government such as DEFRA and the Carbon Trust. For example, one of the largest and recent projects awarded is Frisbee (Food Refrigeration Innovations for Safety, consumers' Benefit, Environmental impact and Energy optimisation along the cold chain in Europe), a large FP7 4 year integrated research project started in September. Another recent project to develop refrigeration road map that advises companies how to approach carbon reduction in supermarket refrigeration system over the next 10 years received a highly commended award at the RAC Cooling Awards. The judges heaped praise on the document describing it as 'comprehensive' and 'significant'. Due to the success of the work the Carbon Trust has commissioned further work at LSBU to develop several codes of practice for the refrigeration industry.

The centre was also responsible for creating and steering the REAL (Refrigerant Emissions and Leakage) Zero project in conjunction with the Institute of Refrigeration earlier. This project scooped three top environmental awards including the gold award at The RAC Cooling Industry Awards in 2009.

The Centre's reputation and close link with industry especially the retail, food and the building services sectors also enable the team to provide cutting-edge bespoke research and consultancy for world-class companies such as Tesco, Sainsbury's, M&S and the London Underground, to name just a few. The Centre has been successful in securing 3 research consultancy projects with Tesco that will form the basis of a longer term partnership to develop a novel technology centre. The collaboration with UK's biggest supermarket chain will put LSBU in a leading position amongst its peers in refrigeration and energy research. The Centre's innovation and knowledge are also transferred to the industry through the Knowledge Transfer Partnership programme with big impact on businesses.

Leadership of CARR is provided by Professor Judith Evans, Dr Issa Chaer, Dr Deborah Andrews and Professor Graeme Maidment

Department of Applied Sciences
Acting Head of Department: Mandy Maidment

The Department of Applied Science offers programmes in a engineering and applied sciences to provide industry-ready graduates for the industry.. It operates successfully in four subject group areas: chemical and petrochemical engineering; food and biosciences; forensic science and, sport and exercise science. It offers a diverse range of undergraduate programmes and each subject area has a postgraduate provision. The subject groups are informed by well-established, applied research groups with further groups emerging. It provides diversity of subject,

opportunities for networking with a wide range of stakeholders and partners, opportunities for students transferring between subjects, varied and innovative approaches to learning and teaching and is supported by high quality resources.

Course provision by subject area:-

Food & Biosciences: A multi-pathway BSc / FdSc programme in Food & Biosciences.

BSc (Hons) Applied Science Framework.

MSc in Food Safety and Control.

MSc in International Food Safety & Control

Forensic Science: BSc and MSc programmes in Forensic Science.

Human and Exercise Science: BSc in Sport & Exercise Science.

MSc in Applied and Interdisciplinary Sports Science

Chemical and Petroleum HND / BEng programme in Chemical Engineering.

Engineering: BEng programme in Petroleum Engineering.

MSc in Petroleum Engineering

The departments Enterprise and Research activities fall into the following applied research groups:-

Chemical Engineering Research Centre – Fire and Explosion

Centre for Green Process Engineering

Human Performance Centre

London Food Centre

Institute for Petroleum Engineering (currently being developed)

The focus of the department is to provide students with a rich and diverse range of academic programmes, underpinned and informed by relevant research, enterprise and vocational knowledge.

London Food Centre

Director: Dr Chris Brock

The London Food Centre opened on 24th November 1998. It started life as a Regional Food Technology Transfer Centre tasked by MAFF (now Defra) to assist small food and drink companies by providing information and services on a range of topics including improved food safety and quality, and identifying the best and most relevant available technology. When Defra support ceased it became LSBU's business unit in food science and technology. It still worked mainly with small and medium-sized businesses (SMEs) helping clients with technical advice and consultancy, particularly new product development, food safety and hygiene, HACCP and accreditation (BRC, SALSA, EFSIS) projects, often with support from business support grants for small projects and KTPs for larger projects.

Business support grants have now disappeared and the criteria for awarding KTPs have changed. The London Food Centre has responded by changing its business model. It remains the route to the food and drink industry market for the whole of

LSBU, and especially the food and nutrition scientists at the university. Its offering is comprised of:

- Training
- Scientific and technical services
- Applied Research

The training offering seeks to be competitive by making use of content that is already used for undergraduate teaching. Scientific and technical services can no longer be subsidised with grant support, so, in addition to consultancy, best use is made of student placements to provide services at a price that even small and start-up businesses can afford. KTPs tend to be with larger SMEs and have a more research and innovation content than before. Major applied collaborative research projects are being set up with large food companies. They include elements of innovation through research to attract businesses and tackle major societal challenges so that public support can be sought from sources such as Technology Strategy Board and EU Framework 7.

Examples of current projects and prospects are:

- A KTP with a packaging manufacturer that has developed and implemented a mathematical model that predicts the optimum packaging specification for different types of fresh produce. It reduces new product development time and costs.
- A collaborative research project to fortify a staple food product with the optimum combination of functional ingredients to tackle metabolic syndrome, the risk factors associated with heart disease, high blood pressure and diabetes that increase with current dietary habits and especially obesity.
- A collaborative research project to redesign food factories fundamentally so that they are more resource efficient and much more pleasant places to work. If successful it will reduce resource usage, make the food industry a more attractive career choice and reduce demand for migrant workers.

Centre for Explosions & Fire Engineering

Director: Professor Philip F Nolan

This centre has been continuously in existence since 1978, when contracts were awarded by the Health & Safety Executive and the then Fire Research Station. Since that date the centre has been awarded contracts and grants worth in excess of £15M and these have funded the successful completion of 95 research degrees (89 Ph.Ds) and large numbers of post-doctoral and visiting scientists working on long-term programmes. The emphasis has been on particular types of industrial explosions (runaway chemical reactions, boiling liquid expanding vapour) and both industrial and domestic fires. The specific fire interests have centred on the effectiveness of active fire protection systems i.e. sprinkler sprays and water deluge systems. Our approach is to simultaneously undertake theoretical modelling and physical experiments.

The current programmes relate to chemically based problems within the nuclear industry and specific fires in aircraft and in the local community. The complexities of the problems tackled means that the majority of the work is undertaken by externally funded post-doctoral research fellows. The biggest problem concerns the safe retrieval of nuclear waste and is funded by Sellafield Ltd. Waste has been stored in

silos over many years, but it now needs to be removed for appropriate treatment prior to safer storage below ground, on the sea-bed and/ or in the latest technology housings. Whilst the treatment techniques are well established, removal from old silos can be fraught with difficulties. Before contemplating such a procedure, a scientifically based safety case ensuring the safety of process operators and the local community must be established beyond any doubt. Hydrogen can be generated in the silos due to corrosion, and to a much lesser extent, radiolysis. A perceived scenario could be the simultaneous release of hydrogen in the form of a very large bubble (800 litres) with the removal device, i.e. a crane, hitting the wall of the silo, creating a large spark, igniting a hydrogen-in-air mixture. The group have investigated the ignition of hydrogen in air by mechanical stimuli, overpressure and flame speeds generated by the resulting deflagrations as well as possible mitigation techniques, using ventilation, inert gases and fine water mists.

Our current thermal runaway project is funded by the National Nuclear Laboratory and concerns the definition of the operating envelope of evaporators in fuel reprocessing plants. If processing errors occur in the plant, a product known as 'red oil' can be produced and this can undergo a thermal explosion, hence the need to carefully define the operating conditions.

Over the years the group has extensive experience of working with London Fire Brigade particularly on fire investigation techniques. The current work concerns the detection of arson and ways that this crime can be brought to justice.

Many materials will ignite/ decompose at lower temperatures in high pressure oxygen than in air. This becomes very important in the specification of materials and their designed use in life support systems in aircraft. In association with industrial partners and the Ministry of Defence we have been undertaking cold case reviews of incidents and defining oxygen systems in the latest aircraft designs

Centre for Green Process Engineering (CGPE)

Director: Professor Basu Saha

The Centre for Green Process Engineering (CGPE) has recently been formed in the Department of Applied Science under the direction of Professor Saha. Its inception is based on the growing concern for the environment, increasingly stringent standards for the release of chemicals into the environment, and economic competitiveness. These all focus the need for extensive efforts to improve chemical synthesis and manufacturing methods, as well as the development of new synthetic methodologies that minimize or completely eliminate pollutants. As a consequence, more and more attention has been focused on the use of safer chemicals, through the proper design of clean processes and products. This approach is largely referred to as 'green chemistry'. The principles of green chemistry can be applied to all areas of chemistry including synthesis, catalysis, reaction conditions, separations, analysis and monitoring. Furthermore, the use of catalysis often plays a central role in the development of environmentally benign and clean chemical processes. Efficient, selective organic reactions that are otherwise unfeasible can be carried out under milder reaction conditions in the presence of proper catalysts, thus avoiding the use of hazardous reagents and drastically reducing the outflow of potentially polluting by-products.

Ideally chemical reactions would have attributes such as simplicity, safety, high yield and selectivity, energy efficiency, use of renewable and recyclable reagents and raw materials. In general, chemical reactions cannot achieve all of these goals simultaneously and it is the task of Chemists and Chemical and Process engineers to identify pathways that optimize the balance of desirable attributes. To this end the Centre will be by definition interdisciplinary bringing together complementary activities from across the faculty.

Examples of CGPE activities that are already on-going include:-

Professor Saha has recently developed a cleaner and sustainable alkene epoxidation process technology at London South Bank University (LSBU) in collaboration with Purolite International Ltd (EPSRC project EP/H027653/1, value ~£110,000).

Recently market research has been conducted in collaboration with Innovation China UK (ICUK) for Chinese market assessment. The market survey will help to establish a clear picture of where the developments might be best exploited, including identification of potential future commercial relationships, the technical developments still required and the epoxide systems that should be the primary focus. Professor Saha has recently won The Royal Society Brian Mercer Award (2011) for possible commercialisation of this work (£30,000). This is the first time a post-92 University has received this prestigious award.

The members of the CGPE group are currently investigating a detailed study for the conversion of CO₂ to value added chemicals. Professor Saha has initiated research collaboration with MEL Chemicals, one of the world's leading producers and suppliers of inorganic chemicals specialising in zirconium based catalysts and hydrotalcites.

The development of a "Hypoxicator" prototype – i.e. a safe, wearable hypoxic training device is currently underway. Hypoxicator is a portable and wearable device, which lowers the inspired oxygen and reduces fat storage through improved oxygen metabolism. This collaborative project is being conducted in collaboration with the colleagues from Sport & Exercise Science subject group and Such and Such Design Ltd, UK.

The production of biodiesel from used cooking oil (UCO) is in progress in collaboration with Greenfuel Oil Co. Ltd., Purolite International Ltd. and Novozymes UK Ltd. Rukhsana Faiz and Professor Saha are currently in discussion with the Uptown Oil for a collaborative research project for biodiesel production.

Members of the CGPE group include Professor Basu Saha, Rukhsana Faiz, Dr Donglin Zhao, Dr Fatemeh Jahanzad, Dr Nick Power, Dr David Roberts, Dr Imad Al-Wahaib, Dr Dipesh Patel (Research Assistant) and associated PhD students. Professor Saha is currently in discussion with the members of the Urban Engineering (e.g. Dr Timothy Hong, Professor Graeme Maidment and Professor Robert Xiao) and Engineering and Design (Professor Mohammad Ghavami) departments for possible interdisciplinary collaborative research projects.

London Institute of Petroleum Engineering of FESBE
Professor Shiya Zheng

Following the success of the BEng course in petroleum engineering in 2003 and the MSc course in 2008 at FESBE, a professor in petroleum engineering (Professor Shi-Yi Zheng) was appointed in 2010 to take leadership in research and teaching both courses and further to develop programmes for PhD internationally.

Since then, the three years under graduate (UG) courses in petroleum engineering and the existing one year MSc course were restructured and the accreditation from the corresponding professional organisations (Energy Institute and Institute of Chemical Engineering respectively) are under preparation.

There are currently 5 PhD students doing research in reservoir engineering and characterisation of unconventional reservoirs. 3 more PhD students will be registered in the subject areas of advanced reservoir engineering and petrophysics within this academic year. Petroleum Engineering laboratory received an NMR to complement other facilities to enhance applied research and consulting.

While London Institute of Petroleum Engineering (LIPE) was proposed and promotion of petroleum engineering programme at LSBU is under way internally (workshop in February 2012 was organised) and internationally (communications between China University of Petroleum and Xian Shi You University were made).

Human Performance and Sport and Exercise & Nutrition Research Centres

Dr Katya Mileva

Research and enterprise activities related to Human Performance are co-ordinated through the Human Performance Centre (HPC). The University has demonstrated its commitment to sports-related subjects through the formation of an Academy of Sport (established 2002), with which HPC is closely affiliated. Prime objectives of the HPC's research strategy have been to perform high quality research of relevance and benefit to stakeholders, increase external income through research and enterprise grants, provide staff and students with the opportunity to achieve their research and enterprise potential and effectively disseminate research findings to ensure knowledge transfer and build our reputation for excellence. In the last three years we have achieved these objectives through capital investment (in excess of £350K via SRIF, Research Capability Fund, Restructuring and Collaborative Fund) and income from research grants and enterprise contracts (in excess of £1M).

There are a number of key research areas in which the staff has a unique blend of expertise, excellent facilities and funding: *Movement Neuroscience*: neural mechanisms for control of movement; *Nutrition and Muscle Metabolism*: effects of nutrition on muscle metabolism and performance; *Clinical and Applied Science*: applied research designed to inform evidence-based practice in sport and health. Specifically, research expertise employed across all of our activities include: Biomechanics, particularly gait analysis; Neurophysiology and Motor control; Notational analysis; Sport and exercise psychology; Motor learning and skill development; Sports & exercise physiology and metabolism; Respiratory and Cardiovascular physiology. The Centre benefits from well established or developing partnerships within **LSBU** as well as from strong links to the sporting community, through the Academy of Sport. In the last 5 years the staff have collaborated with a large number of research groups in the UK and Europe (Kingston, King's College and Imperial College, Liverpool Hope; Cork University of Technology, King's College

Hospital, Guy's and St Thomas' Hospital, Bulgarian Academy of Sciences, Semmelweis University, Hungary).

Our problem solving approach to research allied with the strong engineering support and facilities provided by the University has led to the development of Intellectual Property and new technologies through **HPC** activity. **HPC** work is designed around three main programmes: *PerformWell*: assess, advise and monitor not just athletes but also active sports people of all ages and abilities who are seeking to improve their physical performance; *LiveWell*: improve lifestyle through a range of assessment and intervention programmes which can be tailored for individuals as well as organisations; *InnovateWell*: product efficacy testing and development for industry. The Innovate well programme is the core of the **HPC** enterprise activities. Our scientists work together to provide industry with fast and efficient problem-solving solutions in research and development. Examples of successful products that have benefited from product testing and development at the **HPC** include nutritional products (CherryActive®, Firefly Tonics), footwear technology (FitFlop™) and health and fitness-promoting equipment (Youbreathe, Hybreathe, Circulation Booster®, Vibrex, Flexibar®, FitVibe®).

HPC activities have received an excellent rating in the 2008 Research Assessment Exercise: 1st amongst the modern Universities for sports subjects; 2nd across London and 18th nationally in the field of sports-related studies. In the RAE2008 65% of our research output was classified as internationally recognised and excellent in terms of originality, significance and rigour. Since then we have achieved some notable successes, not least the significant increase in income generation (in excess of £1M to date) through enterprise funding from small and medium sized enterprises (e.g. Brandhandling Ltd (>£200K), High Tech Health Ltd (>£250K), Altitude Centre/Lawn Tennis Association (£198K)) as well as through research grants (e.g. Guy's and St Thomas Charity (£203K); Southwark and Redbridge PCTs (£23K), EU (>€45K)).

At both undergraduate and postgraduate levels there is a symbiotic relationship between research and teaching. Our students benefit from the excellent reputation for research and enterprise of our staff and our state-of-the art experimental facilities for laboratory sessions and final year research projects. The students are given the opportunity to assist with existing projects and athlete testing which allow them to acquire vocational skills desired by employers in the sector. We have an established practice to explore the potential of seeking mini-funds to support the student projects on all levels and so far we have been consistently successful in getting studentship grants from the Wellcome Trust, The Physiological Society and EU Research Institutes. Traditionally, the students are also encouraged and supported to present their research work at national and international research meetings and jointly with their supervisors to publish their finding in internationally recognised high-impact factor peer-reviewed journals. The Centre accommodates exchange students from other UK (e.g. King's College and Imperial College) and European Universities (e.g. Tübingen and Maastricht) on ERASMUS and other schemes for internships, summer vacation research and as part of their MSc project work.

The research environment described above accords with the priorities outlined in the **LSBU** Corporate plan and will continue to form the core of our research activities until REF2013.

Centre of Environment Technology
Professor John Zhou and Dr Tim Hong

Environmental degradation is a major problem the world faces today, ranging from global warming, and loss of biodiversity, to depleted and polluted water resources. The problem is particularly serious in many developing and emerging economies, where natural resources such as water are used excessively, as well as being polluted from the discharge of industrial, agricultural and household wastes. But the problem is also a major issue in the developed world such as the EU. For example, water pollution in rivers leading to fish kill has been frequently reported in many EU countries. Harmful algal blooms in the coastal zone due to the discharge of excess nutrients have been a long-term problem along European coastline. Exposure to heavy metals and radioactivity causing human illness such as birth defects and leukaemia has been reported in the UK. As a result, environmental engineers should play an important and active role in the protection of our environment and human health, by improving the green credentials of relevant industries and developing more effective treatment of waste. The need for professionally trained and capable environmental engineers is on the increase, not only from emerging economies but also from the developed world, due to a shortage of natural resources, increasing rate of exploitation, and increasing cost of waste disposal (e.g. landfill tax, discharge permits).

Environmental engineering is a relatively new research area at LSBU. Prof John Zhou in the Dept of Applied Science who specialises in environmental chemistry and water technology, and Dr Tim Hong in the Dept of Urban Engineering who specialises in water quality modelling and wastewater treatment. In addition, there are several other staff members across the Faculty who contribute to the activities of the Centre. Currently the centre's research has received funding from the EU, industry, and international bodies. We actively seek to enhance our funding revenue by recruiting more research active staff, and more applications to funding bodies and industries.

3. Key Information Set 2010/11

3.1 ESBE Financials

Income (total)	£35,544,797
Income (overseas students)	£4,042,614
Staffing costs (total)	£13,539,063
OPEX	£3,710,338
Space charge	£5,406,571
Contribution (cash)	£12,416,404
Contribution (% of income)	34.9%
Staff costs as a % of income	38.1%

3.2 ESBE Student numbers - Faculty level

Students (headcount)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6+	Total
OTH FT*	534	51					585
OTH PT*	1318	358	80				1756
UG FT	1008	622	121	429	1		2181

UG PT	100	148	254	233	153		888
PG FT	380	160	5	5	1	2	553
PG PT	315	202	185	3	7	8	720
Total	3655	1541	645	670	162	10	6683
Overseas students (FT and PT)	379	170	28	96	2	0	675
Research PG students							84

*note - the other category includes Extended degree, HNC, HND, Foundation Degree and non award bearing short courses

3.3 ESBE Student demographics – Year 1 Level 4 UG and Level 7 (PG) students

1	Faculty
2	U/C/D
3	F/D
4	Female
5	Male
6	Asia
7	Black
8	Black
9	Chin
10	Not
11	Other
12	Refu
13	Whit
14	21
15	22 to
16	25 to
17	40 or

18	19	20	21	G e n d e r		
					22	Ethnicity

41																
	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57

75																	
	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	

3.4 ESBE Retention and Progression

Department	UG FT level 4 2010-11 Progress	UG FT level 5 2010-11 Progress	UG FT level 6 2010-11 Award
Applied Science	62%	73%	93%
Built Environment	59%	76%	90%
Engineering & Design	59%	82%	85%
Urban Engineering	68%	66%	74%
Faculty Average	62%	75%	87%

Department	PG FT Yr 1 2010-11 Award	PG FT Yr 2 2010-11 Award
Applied Science	84%	89%
Built Environment	75%	71%
Engineering & Design	78%	100%
Urban Engineering	71%	94%
Faculty Average	76%	81%

3.4.1 Top 10 Faculty course years for progression and retention (best first)

There are 126 course years with 100% progression. There is at least one in every level of each department. Many courses have small numbers but share most of their modules with other courses

3.4.2 Bottom 10 Faculty course years for progression and retention (worst first)

There are 18 course years with 0% progression. Many courses have small numbers but share most of their modules with other courses. These course years typically have 1 or 2 students on them.

4 National Student Satisfaction 2011 [one table for each discrete JACS code area]

JACS Subject Area	2011 Sector Benchmark	2011 score achieved at LSBU	Variance from Benchmark
Architecture			
Teaching	83	66	-22
Assessment & feedback	63	58	-5

Academic support	73	60	-13
Organisation & management	65	58	-7
Learning resources	79	70	-9
Personal development	80	70	-10
Overall satisfaction	78	66	-12

JACS Subject Area Biology	2011 Sector Benchmark	2011 score achieved at LSBU	Variance from Benchmark
Teaching	89	75	-14
Assessment & feedback	61	66	+5
Academic support	78	62	-16
Organisation & management	81	73	-8
Learning resources	81	77	-4
Personal development	80	82	+2
Overall satisfaction	88	77	-11

JACS Subject Area Building	2011 Sector Benchmark	2011 score achieved at LSBU	Variance from Benchmark
Teaching	74	76	+2
Assessment & feedback	57	45	-12
Academic support	70	59	-11
Organisation & management	68	58	-10
Learning resources	81	69	-12
Personal development	74	77	+3
Overall satisfaction	76	77	+1

JACS Subject Area Chemical, Process and Energy Engineering	2011 Sector Benchmark	2011 score achieved at LSBU	Variance from Benchmark
Teaching	81	73	-8
Assessment & feedback	61	53	-8
Academic support	75	55	-20
Organisation & management	78	61	-17
Learning resources	85	73	-12
Personal development	83	78	-5
Overall satisfaction	84	89	+5

JACS Subject Area Civil Engineering	2011 Sector Benchmark	2011 score achieved at LSBU	Variance from Benchmark
Teaching	79	72	-7
Assessment & feedback	59	60	+1
Academic support	75	68	-7
Organisation & management	75	65	-10
Learning resources	82	79	-3
Personal development	79	68	-11
Overall satisfaction	81	71	-10

JACS Subject Area Electronic and Electrical Engineering	2011 Sector Benchmark	2011 score achieved at LSBU	Variance from Benchmark
Teaching	82	77	-5
Assessment & feedback	69	69	0
Academic support	80	74	-6
Organisation & management	78	78	0
Learning resources	86	86	0
Personal development	80	74	-6
Overall satisfaction	84	75	-9

JACS Subject Area Forensic and Archaeological Studies	2011 Sector Benchmark	2011 score achieved at LSBU	Variance from Benchmark
Teaching	85	80	-5
Assessment & feedback	66	54	-12
Academic support	78	67	-11
Organisation & management	73	79	+6
Learning resources	81	76	-5
Personal development	78	63	-15
Overall satisfaction	83	85	+2

JACS Subject Area General Engineering	2011 Sector Benchmark	2011 score achieved at LSBU	Variance from Benchmark
Teaching	82	74	-8

Assessment & feedback	68	57	-11
Academic support	79	69	-10
Organisation & management	75	54	-21
Learning resources	81	76	-5
Personal development	76	72	-4
Overall satisfaction	83	74	-9

JACS Subject Area	2011 Sector Benchmark	2011 score achieved at LSBU	Variance from Benchmark
Mechanical, Production and Manufacturing Engineering			
Teaching	80	69	-11
Assessment & feedback	63	55	-8
Academic support	77	62	-15
Organisation & management	75	57	-8
Learning resources	82	68	-14
Personal development	80	62	-18
Overall satisfaction	81	53	-28

JACS Subject Area	2011 Sector Benchmark	2011 score achieved at LSBU	Variance from Benchmark
Sport Science			
Teaching	85	79	-6
Assessment & feedback	69	71	+2
Academic support	79	90	+11
Organisation & management	77	74	-3
Learning resources	81	90	+9
Personal development	82	86	+4
Overall satisfaction	83	79	-4

4.1 National Student Satisfaction 2011: best and worst areas against category benchmark

NSS Category	Area with best variance against benchmark	Variance	Area with worst variance against benchmark	Variance
Teaching	Building	+2	Architecture	-22
Assessment &	Biology	+5	Building/Forensic	-12

feedback			& Archaeological Studies	
Academic support	Sport Science	+11	Chemical, Process & Energy Engineering	-20
Organisation & management	Forensic & Archaeological Studies	+6	General Engineering	-21
Learning resources	Sport Science	+9	Mechanical, Production & Manufacturing Engineering	-14
Personal development	Sport Science	+4	Mechanical, Production & Manufacturing Engineering	-18
Overall satisfaction	Chemical, Process & Energy Engineering	+5	Mechanical, Production & Manufacturing Engineering	-28

Student Awards and Prizes

Once every year in the Spring Semester, ESBE holds a student prize giving event. This event is an opportunity for students, staff and colleagues from external organisations to come together and celebrate our students achievements. The faculty presents a number of prizes on behalf of each Department, but the major prizes are donated by our industry partners.

Our students do also win external awards throughout the year, and we always publish details of such awards, in order to inspire other students.

Award Name	Company Name (If known)
The Bovis Lend Lease: Bob Trew Memorial Prize	Bovis Lend Lease Plc
The Brixton School of Building Prize	The Brixton School of Building
The Capital and Counties World Atlas Prize	Capital & Counties Logo
The Chartered Institute of Architectural Technologists Outstanding Achievement as the Highest Graduating Honours Degree Student in Architectural Technology	The Chartered Institute of Architectural Technologists
The Chartered Surveyors Trust Prize - Year 1	The Chartered Surveyors Training Trust
The CIOB Prize	The Chartered Institute of Building
The Construction Youth Trust Prize	Construction Youth Trust
The Hays Construction Prize	Hays Recruiting
The Pellings Prize 2010	Pellings

The RICS Prize 2010	The Royal Institute of Chartered Surveyors
The Wates Group Prize	Wates Group Plc
The Worshipful Company of Constructors Prize	Worshipful Company of Constructors
The Balfour Beatty Rail Prize for HNC Civil Engineering	Balfour Beatty
The CIBSE - The AG Manly Charitable Trust Bursary	The Chartered Institute of Building
The Institution of Civil Engineers Prize	The Institute of Civil Engineers
The Institution of Structural Engineers (South Eastern Counties Branch) Prize	The Institute of Structural Engineers
The RBA Acoustics Prize	RBA Acoustics

5. Employability – 2011 DLHE data

Department	Full-time paid work only	Part-time paid work only	Voluntary/ Unpaid Work only	Further Study only	Assumed to be unemployed
1. EAS	32.5	12.7	1.6	16.7	19.8
2. EBE	60.7	3.6	0.8	17.2	5.7
3. EED	36.4	7.5	0	20.6	12.1
4. EUE	52.1	3.1	0	8.6	10.4

5.1 10 ESBE courses with lowest assumed unemployed figures (best first)

Department	Course	% Assumed to be unemployed
1. EBE	MSc Quantity Surveying (PT)	2.2
2. EBE	MSc Building Surveying (PT)	3.8
3. EUE	BEng Building Services Engineering	5.9
4. EBE	MSc Building Surveying (FT)	5.9
5. EUE	BSc Building Services Engineering (PT)	6.5
6. EAS	BSc Forensic Science	6.7
7. EBE	MSc Real Estate	6.7
8. EED	BTEC HNC Electronic and Electrical Engineering	8.3
9. EBE	BSc Architectural Technology (FT)	11.1
10.EBE	BSc Architectural Technology (PT)	14.3

5.2 10 ESBE courses with highest assumed unemployed figures (worst first)

Department	Course	% Assumed to be unemployed
1. EAS	BSc Bioscience (Biochemistry)	60.0
2. EAS	MSc Petroleum Engineering	57.1
3. EED	BEng Mechatronics	50.0
4. EUE	MSc Civil Engineering	50.0
5. EUE	BEng Civil Engineering	50.0
6. EUE	BEng Building Services Engineering (FT)	50.0
7. EAS	BSc Bioscience (Microbiology)	40.0
8. EAS	BSc Human Biology	40.0
9. EAS	BEng Chemical and Process Engineering	36.4
10.EAS	MSc Food Safety & Control	33.3

6. Outlook for the Faculty

Context

From 2012/13, the competition for student recruitment is likely to be fierce as the students will have much greater choice. The Government is also encouraging competition from FE and private sectors by controlling the distribution of student places across the sector. Student progression and satisfaction will be critical for the success of programmes in the future. Applicants to the universities will have access to the information on progression, graduation and student satisfaction to help them make their choices of universities to study at. The emphasis on student success, employability and satisfaction is increasing in various league tables and the standing of a subject in popular league tables will also have a strong impact on the recruitment both in numbers and quality.

There has been a growing emphasis on STEM education in the UK in response to the identified technology and engineering graduate level skill shortages. Although engineering jobs in traditional manufacturing sector have not been growing, organisations such as the National Grid, TfL and Cross Rail are seeking large numbers of professionally educated engineering graduates over the coming decade. Energy and utilities sectors are also facing the shortage of professionally qualified scientists and engineers. The Government has confirmed their continued commitment to supporting the Strategically Important and Vulnerable Subjects (SIVS). The built environment sector, both housing and commercial, has been growing again following a three year stagnant period. In London alone projects such as Nine Elms, Elephant and Castle, and Earls Court development will require large

number of building professionals over the next decade. We will further build on our strengths in relevant engineering and the built environment programmes.

The research funding will be much tighter than in previous years. With the reduction in funding the number of KTPs being awarded annually has been reduced. At the same time the competition for these programmes has increased. We expect that retaining our current share of QR funding will be difficult into the future, while funding from the Research Councils will be increasingly difficult for post 92 universities. Our success rate with EU programmes continues to be high, but these programmes do not attract full economic costing and therefore must be subsidised. Therefore, it is even more important for the Faculty to prioritise research investment to support the academic portfolio on one hand, and to drive up consulting and CPD activities on the other. This will also enable us to retain critical mass of high quality research to return to REF in selected areas.

Enterprise and research are also important in providing a distinctive student experience and preparing them for the world of work upon graduation. Participation in enterprise programmes and activities by UG and PG students supports the development of their confidence and employability attributes.

Strengths

- Highly successful part-time provision
- Industry satisfaction with our graduate attributes and overall (part-time and full-time) graduate employability high
- Part-time degree structure (3 year degrees completed in 4 years)
- Applied research in areas relevant to the academic portfolio
- Strong RAE outcomes (18th in the UK in General Engineering)
- Leadership position in KTPs
- Postgraduate offerings in the Built Environment
- High graduate starting salaries
- Consistently strong financial performance
- Coherent and relevant academic portfolio allowing for effective and efficient delivery

Weaknesses

- Full-time student unemployment rate in some subject areas – the percentage of graduates from full-time study is below benchmarks, although the starting salaries of those in employment are high.
- NSS scores in some programmes
- Retention and progression in first year – improving but the rate of improvement is slow
- Engagement in work placements for full-time students. Our part-time students however fully exploit the work integrated learning opportunities.
- Some of our specialist laboratory and studio facilities require updating.
- Limited short course and consulting activities

Opportunities

- Renewed emphasis on science and engineering in Government policy
- Academic portfolio with employability outcomes
- Record of highly successful part-time provision across many disciplines
- Strong industry links for both educational programmes and applied research
- Central London Location, particularly a significant advantage for the built environment offering
- Highly successful alumni in the built environment disciplines
- Strong research capacity in General Engineering – potential for good performance in Research Excellence Framework
- Strong demand for engineering programmes in the international market
- Projected growth in the postgraduate market for engineering and the built environment programmes

Threats

- Private sector provision in the Built Environment disciplines
- Difficulty in recruiting staff with academic achievement and industrial/business experience
- UKBA's visa policies for international students and staff – some programmes are highly reliant on overseas students.
- Funding for STEM subjects
- Proposed concentration of research

Professor Rao Bhamidimarri
Executive Dean
Faculty of Engineering, Science and the Built Environment

Key Staff:**Executive Dean:** Professor Judith Ellis, MBE.

Pro Deans: Anne Garvey - Students & Quality,
 Dr. Warren Turner - Contracts and Enterprise
 Professor Nicola Crichton - Research

Department	Head of Department
Allied Health Sciences	Dr. Michelle Spruce
Adult & Midwifery	Debbie Harris
- Midwifery & Women's Health	Judith Nabb (Head of Midwifery Education)
Child	Susan Mullaney
Mental Health & Learning Disabilities	Enkanah Soobadoo
Primary and Social Care	Mary Saunders
Institute of Vocational Learning	Richard Griffin (Director)
Institute of Strategic Leadership & Service Improvement	Dr. Alex Mears (Director)

About the Faculty

The Faculty of Health & Social Care is the largest faculty in London South Bank University, based on two campuses in London and Essex and has a long standing reputation for excellence in the education, research and practice development of a variety of health and social care specialists.

London South Bank University has demonstrated its continued commitment to enhance the status and focus of health and social care activity by investing in a major programme of estates development on the Southwark Campus culminating in the opening of K2 in 2010.

In the last decade, following the successful incorporation of a significant number of NHS Colleges of Health and Nursing, the reputation of the Faculty attracted a number of high profile education centres for nursing, midwifery and the allied health professions from Trusts across London, including prestigious hospitals and Primary Care Trusts throughout London and Essex:

- University College London Hospitals NHS Foundation Trust
- Great Ormond Street Hospital for Children NHS Trust
- Guys and St. Thomas' Hospital NHS Foundation Trust
- South London and the Maudsley NHS Trust
- The Royal National Orthopaedic Hospital NHS Trust
- King's College Hospital NHS Trust
- The National Hospital for Neurology and Neurosurgery (now part of UCLHT)
- Whipps Cross University Hospital NHS Trust
- Barking, Havering and Redbridge NHS Hospitals Trust
- The North East London Foundation Trust
- Primary Care Trusts (future CCG's) in Barking and Dagenham, Redbridge, Waltham Forest, Havering, Southwark, Dartford, Gravesend & Swanley, Lambeth and Bexley

The Faculty now possesses a course portfolio that caters for a variety of health and social care specialists, including general practitioners, nurses, midwives, health

visitors, social workers, occupational therapists, peri-operative practitioners, primary care/community practitioners, radiographers (diagnostic and therapeutic), physiotherapists, specialists in health promotion, public health, careers guidance and managers of health and related primary care services.

Programmes have been designed to be flexible and span all levels of study from vocational to postgraduate activities, and include work-based learning, e-based learning, taught and distance learning, some of which are being delivered internationally. Of particular importance to the Faculty of Health & Social Care has been its affirmed commitment to the provision of inter-professional education, research and practice development.

The RCN Centre for Leadership and Practice Innovation has also been incorporated into the Faculty, underpinned by a strategic alliance with the Royal College of Nursing which provides taught courses and practice development programme accreditation for nurses and other professionals. In 2007 the RCN Centre was given Institute status by the University and is now called the Institute for Leadership and Service Improvement. In July 2002 the University launched the Institute of Primary Care and Public Health, based in the Faculty of Health & Social Care; the Institute supports all primary care and public health related activities across the University.

The Faculty also has a long track record in delivering excellence in vocational education supporting service providers to build capacity and capability and in 2010 the Faculty launched the Institute of Vocational Learning for Health and Social Care. The Institute ensures vocational learning is effective, facilitates progression and supports the development of new roles and new ways of working to improve care.

The Faculty has remained true to the University mission of working with inner city services and commitment to policies of widening participation and social inclusion. To enhance access to professional courses, in-service part time and cadet routes have been established with trusts and collaborative links have been forged with local further education colleges to develop customized access routes to professional education at London South Bank. Students are supported by committed staff, who are leaders in their field and engaged in progressing the evidence base of the discipline.

The Faculty also hosts the Academy of Prescribing for Medicines, offering Non-Medical Prescribing programmes for Nurses, Pharmacists and AHPs (Physiotherapists, Podiatrists and Radiographers).

London South Bank University works in partnership with London's NHS Strategic Health Authority and has major contracts in south east, north central and north east London, and south west and north west London in relation to Allied Health Professions delivery, covering two thirds of London's health and social care population.

The Faculty vision is “to be London’s first choice provider of education, enterprise and research for the Health and Social Care workforce, supporting excellence in service delivery.”

3 Key Information Set 2010/11

3.1 Financials: 2011/12 budget HSC

The table below is based on the Faculty's budget for this financial year and do not reflect any changes to the full year forecast during the year.

Income (Total)	36,721,799
Income (Overseas Students)	187,950
Staffing Costs (Total)	(16,730,106)
OPEX	(2,675,550) + dep'n (62,934)
Space Charge	(2,539,035)
Contribution (Cash)	14,714,174
Contribution (% of Income)	40.1%
Staff Costs as a % of income	45.6%

3.2 Student Numbers – Faculty Level

Students (Headcount)	
Pre-Qual	3093
Post-Qual	1551
Foundation	216
Research	49
Other	138
Overseas Students (all categories)	123

3.3 Student Demographics – Faculty Level

Gender (Male:Female)	16: 84
Age (18 – 21)	6.83%
Age (21 – 25)	17.49%
Age (over 25)	75.67%
Ethnicity (Group 1 - White)	50.55%
Ethnicity (Group 2 - Black)	32.29%
Ethnicity (Group 3 - Asian)	7.98%
Ethnicity (Group 4 Mixed)	3.21%
Ethnicity (Group 5 Not Known)	5.96%

3.4 Retention and Progression - NHS London Performance Rankings

Course/Profession	Overall Performance Rating	
Occupational Therapy	73.1	High Amber
BSc 3 Years	92.3%	Green
BSc 4 Years	53.8%	Low Amber
PG Dip 2 Years	85%	High Amber

Course/Profession	Overall Performance Rating	
Operating Department Practice (DipHE, 2 Yrs)	63.3%	Low Amber

Course/Profession	Overall Performance Rating	
Physiotherapy (BSc (Hons), 4 Yrs)	68.9%	Low Amber

Course/Profession	Overall Performance Rating	
Radiography - Diagnostic	85.1%	High Amber
BSc 3 Years	85.7%	High Amber
BSc 4 Years	77.3%	High Amber

Course/Profession	Overall Performance Rating	
Radiography - Therapeutic	66.4%	Low Amber
BSc 3 Years	72.7%	High Amber
PGDip 2 Yrs	56.7%	Low Amber

Course/Profession	Overall Performance Rating	
Nursing – Adult (DipHE/BSc (Hons), 3 Yrs)	69%	Low Amber

Course/Profession	Overall Performance Rating	
Nursing – Child DipHE/BSc (Hons), 3 Yrs	68.7%	Low Amber
2 nd Reg, 1 Year	68.3%	Low Amber
	89.1%	High Amber

Course/Profession	Overall Performance Rating	
Nursing – Mental Health DipHE/BSc (Hons), 3 Yrs	85.5%	High Amber
BSc (Hons) MHSW, 3 Yrs	87.3%	High Amber
	74.6%	High Amber

Course/Profession	Overall Performance Rating	
Nursing – Learning	79.4%	High Amber

Disabilities (DipHE/BSc (Hons), 3 Yrs)		
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Course/Profession	Overall Performance Rating	
Midwifery	92.4%	Green
BSc (Hons) 18 Months	98.2%	Green
BSc (Hons) 3 Yr	90.0%	Green

Course/Profession	Overall Performance Rating	
Nursing – CPPD	90.0%	Green

4. National Student Satisfaction 2011

Social Work	2011 Sector Benchmark	2011 Score Achieved at LSBU	Variance from Benchmark
Teaching	85	76	-9
Assessment & Feedback	71	38	-33
Academic Support	74	39	-35
Organisation & Management	70	57	-13
Learning Resources	74	73	-1
Personal Development	85	75	-10
Overall Satisfaction	81	63	-18

Nursing	2011 Sector Benchmark	2011 Score Achieved at LSBU	Variance from Benchmark
Teaching	86	85	-1
Assessment & Feedback	71	65	-6
Academic Support	77	71	-6
Organisation & Management	60	62	2
Learning Resources	85	82	-3
Personal Development	88	87	-1
Overall Satisfaction	83	80	-3

Allied to Medicine	2011 Sector Benchmark	2011 Score Achieved at LSBU	Variance from Benchmark
Teaching	86	88	2
Assessment & Feedback	66	59	-7
Academic Support	76	61	-15

Organisation & Management	70	64	-6
Learning Resources	79	77	-2
Personal Development	83	75	-8
Overall Satisfaction	82	80	-2

Medical Technology	2011 Sector Benchmark	2011 Score Achieved at LSBU	Variance from Benchmark
Teaching	85	88	3
Assessment & Feedback	64	62	-2
Academic Support	77	71	-6
Organisation & Management	62	63	1
Learning Resources	79	64	-15
Personal Development	84	84	0
Overall Satisfaction	82	77	-5

4.1 National Student Satisfaction 2011: best and worst areas against category benchmark.

JACS Subject Area	Category	2011 Sector Benchmark	2011 Score Achieved at LSBU	Variance from Benchmark
Nursing	Teaching	86	85	-1
	Assessment & Feedback	71	65	-6
	Academic Support	77	71	-6
	Organisation & Management	60	62	2
	Learning Resources	85	82	-3
	Personal Development	88	87	-1
	Overall Satisfaction	83	80	-3
Nursing Total		550	532	-18
Medical Technology	Teaching	85	88	3
	Assessment & Feedback	64	62	-2
	Academic Support	77	71	-6
	Organisation & Management	62	63	1
	Learning Resources	79	64	-15

	Personal Development	84	84	0
	Overall Satisfaction	82	77	-5
Medical Technology Total		533	509	-24
Allied to Medicine	Teaching	86	88	2
	Assessment & Feedback	66	59	-7
	Academic Support	76	61	-9
	Organisation & Management	70	64	-6
	Learning Resources	79	77	-2
	Personal Development	83	75	-8
	Overall Satisfaction	82	80	-2
Allied to Medicine Total		542	504	-32
Social Work	Teaching	85	76	-9
	Assessment & Feedback	71	38	-33
	Academic Support	74	39	-35
	Organisation & Management	70	57	-13
	Learning Resources	74	73	-1
	Personal Development	85	75	-10
	Overall Satisfaction	81	63	-18
Social Work Total		540	421	-119

5. Employability – 2011 (09/10) DLHE Data

DEPT CODE	Course Type	AOS CODE	Course Name	Full-time paid work only	Full-time paid work only (Index)	Part-time paid work only	Part-time paid work only (Index)	Unpaid Work only	Unpaid Work only (Index)	Work and study	Work and study (Index)	Further Study only	Further Study only (Index)	Assumed to be unemployed	Assumed to be unemployed (Index)
HFS	Pre-Qual	3002	BSc Nursing Studies (Adult) (Child) (Mental Health)	91.4 %	133	1.0 %	5			2.9 %	11			1.9 %	10
HPSC	Post-Qual	3739	Applying To Higher Education Adviser's Certificate	78.3 %	114	2.2 %	12			10.9 %	43			2.2 %	12
HSC	Pre-Qual	3001	BSc (Hons) Nursing	88.6 %	129	1.9 %	10			4.8 %	19			2.9 %	16
HSC	Pre-Qual	3000	DipHE Nursing Studies/BSc/BSc (Hons)	78.9 %	115	3.5 %	19			4.2 %	17	1.4 %	8	7.0 %	38
HAHP	Pre-Qual	2384	BSc (Hons) Diagnostic Radiography	74.1 %	108	7.4 %	41	3.7 %	41	3.7 %	15			7.4 %	40
HPSC	Post-Qual	2120	PGDip Guidance/Qualification In Careers Guidance	61.5 %	90	7.7 %	42			7.7 %	30			7.7 %	42
HPSC	Post-Qual	3054	MSc/PGDip Social Work	18.2 %	27	9.1 %	50			27.3 %	108	18.2 %	104	9.1 %	50
HPSC	Pre-Qual	3038	BSc (Hons) Nursing & Social Work Studies (Learning Disabilities)	52.4 %	76	14.3 %	78			4.8 %	19			23.8 %	130
HPSC	Pre-Qual	2325	BA (Hons) Social Work	50.0 %	73							12.5 %	71	25.0 %	136

DEPT CODE	Course Type	AOS CODE	Course Name	Full-time paid work only	Full-time paid work only (Index)	Part-time paid work only	Part-time paid work only (Index)	Unpaid Work Voluntary/only	Unpaid Work Voluntary/only (Index)	Work and study	Work and study (Index)	Further Study only	Further Study only (Index)	Assumed to be unemployed	Assumed to be unemployed (Index)
HAHP	Post-Qual	3235	MSc/PGDip/PGCert Clinical Ultrasound	80.0 %	117	20.0 %	109								
HAHP	Post-Qual	3245	MSc/PGDip Reporting Of The Skeletal System	75.0 %	110	25.0 %	137								
HAHP	Post-Qual	3427	Bridging Course For Radiographers	0.0%	0					100.0%	396				
HAHP	Pre-Qual	3603	BSc (Hons) Therapeutic Radiography	0.0%	0					100.0%	396				
HAHP	FdSc	3612	FdSc Exercise, Physical Activity And Health	100.0 %	146										
HAHP	FdSc	3746	FdSc Diagnostic Imaging	100.0 %	146										
HAHP	FdSc	3834	Cert HE Peri-Operative Assistant Practice	66.7 %	97	33.3 %	182								
HCN	Pre-Qual	2481	BSc/Diploma Nursing Studies (Child)	100.0 %	146										
HCN	Post-Qual	3147	MSc/PGDip Children's Advanced Nurse Practitioner (Strategic Leadership & Expert Practice)	80.0 %	117					20.0%	79				

DEPT CODE	Course Type	AOS CODE	Course Name	Full-time paid work only	Full-time paid work only (Index)	Part-time paid work only	Part-time paid work only (Index)	Unpaid Work only	Unpaid Work only (Index)	Work and study	Work and study (Index)	Further Study only	Further Study only (Index)	Assumed to be unemployed	Assumed to be unemployed (Index)
HPSC	Post-Qual	2317	BSc (Hons) Nurse Practitioner (Primary Health Care)	66.7 %	97	33.3 %	182								
HPSC	Pre-Qual	2326	BA (Hons) Social Work	86.7 %	127					13.3%	53				
HPSC	Post-Qual	2438	MSc/PGDip Nurse Practitioner (Strategic Leadership & Expert Pract)	33.3 %	49	33.3 %	182			33.3%	132				
HPSC	Pre-Qual	2447	PGDip Occupational Therapy	42.9 %	63	28.6 %	156	14.3 %	159	14.3%	57				
HPSC	Post-Qual	3055	MSc/PGDip Social Work	33.3 %	49	0.0 %	0			33.3%	132				
HPSC	Post-Qual	3086	MSc/PGDip Strategic Leadership & Expert Practice (Education)												
HPSC	FdSc	3091	FdSc Health And Social Care (Primary Care)	68.4 %	100	15.8 %	86			5.3 %	21	10.5 %	60		
HPSC	Post-Qual	3325	PGDip Specialist Community Public Health Nursing - School Nursing	50.0 %	73	50.0 %	274								
HPSC	Post-Qual	3329	PGDip Specialist Community Public Health Nursing - Health Visiting	100.0 %	146										

DEPT CODE	Course Type	AOS CODE	Course Name	Full-time paid work only	Full-time paid work only (Index)	Part-time paid work only	Part-time paid work only (Index)	Unpaid Work only	Unpaid Work only (Index)	Work and study	Work and study (Index)	Further Study only	Further Study only (Index)	Assumed to be unemployed	Assumed to be unemployed (Index)
HPSC	Post-Qual	3331	BSc (Hons) Specialist Community Public Health Nursing - Occupational Health Nursing	100.0 %	146										
HPSC	Post-Qual	3338	PGDip Health Protection Nursing	100.0 %	146										
HPSC	Post-Qual	3468	Graduate Certificate In Non Medical Prescribing	47.6 %	70	23.8 %	130			19.0%	75	4.8 %	27		
HPSC	Post-Qual	3469	PGCert Non-Medical Prescribing	62.0 %	91	2.0 %	11			20.0%	79				
HPSC	FdSc	3611	FdSc Public Health Practice	75.0 %	110										
HSC	Pre-Qual	3684	Advanced Diploma In Adult Nursing, Children's Nursing, Mental Health Nursing												
Overall		Overall	Overall	76.1 %		5.4 %		0.3 %		7.5 %		1.3 %		4.0 %	
Overall		Average	Average	68.5 %		18.3 %		9.0 %		25.3 %		17.5 %		18.4 %	
Overall		Median	Median	74.1 %		15.0 %		9.0 %		14.3 %		12.5 %		8.4 %	

6. Outlook for the Faculty

Our strategic priorities for academic development over the next few years include:

- The development of Post graduate diplomas in Nursing to supplement the newly validated degree routes for an all graduate nursing profession
- The development of value/ situational analysis based recruitment strategies, ensuring that LSBU nursing students enter the course with appropriate values and attitudes
- Membership of and inclusion in the workforce planning activity and commissioning role of LETB's within SE London and NE/NC London
- Further integration with Academic Health Science Centres and AHSN's
- Ensuring that all programmes meet the NHS Educational Outcome Framework, at prequalifying and post qualifying level
- The further development of CPPD for the allied health professions and social work workforce.
- The support and development of social enterprise in social work
- The further development of innovative teaching and learning approaches, for example Stillwell, virtual children's hospital etc.
- The further development of Vocational, Foundation Degree portfolios and apprenticeships.
- The development of international programmes and business e.g. top up degrees in nursing and allied health.