PROCESSO	Protocolo SICCAU nº 659638/2018
ASSUNTO	Revoga e substitui a Deliberação nº 027/2018 – CEF – CAU/RS que dispõe sobre a apreciação do requerimento de registro profissional de MAURO SLOMP, com diploma de graduação em Arquitetura expedido em 05/07/2002 pela *University of North London*, da cidade de Londres, na Inglaterra, e revalidado pela Universidade Federal do Rio Grande do Sul em 24 de março de 2015.
RELATOR	CONS. JOSÉ ARTHUR FELL

RELATÓRIO E VOTO

O presente trata do requerimento de registro profissional do Sr. Mauro Slomp (CPF sob o nº 436.801.860-53) protocolado no Sistema de Informação e Comunicação do CAU (SICCAU) sob o nº 659638/2018, no dia 28 de fevereiro de 2018, informando ter realizado seus estudos na *University of North London*, situada na cidade de Londres, na Inglaterra, cujo diploma, expedido em 5 de julho de 2002, e revalidado pela Universidade Federal do Rio Grande do Sul em 24 de março de 2015.

Os procedimentos para o registro profissional de arquitetos e urbanistas, brasileiros ou estrangeiros portadores de visto permanente, diplomados por instituições de ensino superior estrangeiras, nos Conselhos de Arquitetura e Urbanismo dos Estados e do Distrito Federal (CAU/UF) são regulamentados pela Resolução CAU/BR nº 26/2012.

Segundo a referida Resolução, o CAU/UF deverá conferir os documentos apresentados pelo interessado e compilar as informações em formulário próprio disponível no SICCAU, que deverá adotar o modelo matricial do Anexo II da Resolução – planilha intitulada MATRIZ CURRICULAR DE ANÁLISE DE CORRESPONDÊNCIA DE CURSO – elaborada em conformidade com o art. 6º, inciso III, da Resolução CNE/CES nº 1/2002, esta, por sua vez, estabelece normas para a revalidação de diplomas de graduação expedidos por estabelecimentos estrangeiros de ensino superior.

Concluída a conferência e a compilação, o processo deverá ser encaminhado para análise e apreciação da Comissão de Ensino e Formação do CAU/UF, ou, na falta desta, sucessivamente, da comissão com competência para a matéria, ou do Plenário do CAU/UF, seguindo para análise e deliberação da Comissão de Ensino e Formação do CAU/BR e posterior homologação pelo Plenário do CAU/BR, sendo este o competente para deferir ou revogar o registro.

Neste caso, a Comissão de Ensino e Formação do CAU/RS (CEF-CAU/RS), ao analisar e apreciar a documentação apresentada pelo requerente, verificou que:

- Os documentos não contemplam os conteúdos mínimos exigidos pela Resolução nº 2/2010, do MEC, a qual institui as Diretrizes Curriculares do curso de graduação em Arquitetura e Urbanismo, conforme demonstrado na planilha MATRIZ CURRICULAR DE ANÁLISE DE CORRESPONDÊNCIA DE CURSO anexa;
- A documentação apresentada não comprova que o requerente tenha cumprido a carga horária mínima de **3.600** horas exigida pela Resolução CNE/CES nº 2/2007, levando a entender que cumpriu apenas **2.670** horas, conforme identificado no conteúdo programático;
- O requerente não cumpriu o mínimo de **5 (cinco) anos** exigidos pela Resolução CNE/CES nº 2/2007, cumpriu apenas **3 (três) anos**, conforme evidencia a documentação apresentada.
- Em análise aos três níveis necessários para adquirir a habilitação para o exercício pleno da profissão de arquiteto (*Riba Part I, Riba Part II, Riba Part III*), exigidos pelos órgãos reguladores da Inglaterra, o requerente concluiu o currículo equivalente ao primeiro nível.

No intuito de buscar entender os critérios utilizados pela Universidade Federal do Rio Grande do Sul

(UFRGS) na revalidação do diploma do requerente e na consequente concessão do título de Arquiteto e Urbanista, a CEF-CAURS, por intermédio do seu Presidente, encaminhou, em 11 de dezembro de 2018, o Ofício PRES-CAU/RS nº 361/2018 (Anexo II), porém não obteve retorno.

Considerando a importância de obter os esclarecimentos da UFRGS antes de prosseguir com a deliberação acerca do requerimento do registro em questão, a CEF-CAURS, novamente, por intermédio do seu Presidente, encaminhou, em 9 de maio de 2019, o Ofício PRES-CAU/RS nº 244/2019, ao qual obteve-se retorno (Anexo III).

Após analisar os esclarecimentos então prestados pela UFRGS, apresentam-se as seguintes considerações:

- Primeiro ofício (Ofício PRES-CAU/RS Nº 361/2018): não respondido;
- Análise UFRGS: 1 crédito = 15 horas, sendo assim, o requerente cumpre 4.725 horas;
- Análise CEF-CAU/RS: o conteúdo programático demonstra que 1 crédito = 8 horas, sendo assim, o requerente cumpre = 2.520 horas, excetuando-se as 150 horas cumpridas no Brasil;
- PARECER Nº 01/2019 (UFRGS; Faculdade de Arquitetura; Comissão de graduação):
    - 15 horas por crédito;
    - Em *diploma supplement*, em *official lenght program* = 2 a 6 anos (*depending on the mode of study*);
    - Modos de estudo em tempo integral ou parcial;
    - "na época a instrução era de que o mesmo [15 h/crédito] fosse avaliado apenas com a documentação constante no processo" – "hoje [...] ECTS é de 10 horas";
    - "o aluno em questão iniciou o curso em 1994 e só ter se diplomado em 2002, perfazendo oito anos...";
    - "reiteramos que o diploma foi revalidado segundo a legislação vigente da época"; e
    - Cita a Resolução CNE/CES nº 8, de 2007: "a equivalência dos diplomas quanto ao currículo, títulos ou habilitações deve ser entendida "em sentido amplo, de modo a abranger áreas congêneres, similares ou afins, aos que são oferecidos no Brasil (Art. 2º)".
- Resoluções citadas pela UFRGS:
    - Resolução CNE/CES nº 1, de 2002, que estabelece normas para a revalidação de diplomas de graduação expedidos por estabelecimentos estrangeiros de ensino superior; e
    - Resolução CNE/CES nº 8, de 2007, que altera o art. 4º e revoga o art. 10 da Resolução CNE/CES nº 1/2002, a qual estabelece normas para a revalidação de diplomas de graduação expedidos por estabelecimentos estrangeiros de ensino superior;
- Destaques na Resolução CNE/CES nº 8, de 2007:

> Art. 6º A comissão de que trata o artigo anterior deverá examinar, entre outros, os seguintes aspectos:
> I – afinidade de área entre o curso realizado no exterior e os oferecidos pela universidade revalidante;
> II – qualificação conferida pelo título e adequação da documentação que o acompanha; e
> III – correspondência do curso realizado no exterior com o que é oferecido no Brasil.
> Parágrafo único. A comissão poderá solicitar informações ou documentação complementares que, a seu critério, forem consideradas necessárias.
>
> Art. 7º Quando surgirem dúvidas sobre a real equivalência dos estudos realizados no exterior aos correspondentes nacionais, poderá a Comissão solicitar parecer de instituição de ensino especializada na área de conhecimento na qual foi obtido o título.

> [...]
> § 4º Em qualquer caso, exigir-se-á que o candidato haja cumprido ou venha a cumprir os requisitos mínimos prescritos para os cursos brasileiros correspondentes.

- Destaques na Resolução CNE/CES nº 3, de 2016, que dispõe sobre normas referentes à revalidação de diplomas de cursos de graduação e ao reconhecimento de diplomas de pós-graduação *stricto sensu* (mestrado e doutorado), expedidos por estabelecimentos estrangeiros de ensino superior:

> Art. 7º Os(as) candidatos(as) deverão apresentar, quando do protocolo do requerimento de revalidação, os seguintes documentos:
> [...]
> II - cópia do histórico escolar, registrado pela instituição estrangeira responsável pela diplomação e autenticado por autoridade consular competente, contendo as disciplinas ou atividades cursadas e aproveitadas em relação aos resultados das avaliações e frequência, bem como a tipificação e o aproveitamento de estágio e outras atividades de pesquisa e extensão, classificadas como obrigatórias e não obrigatórias;
> [...]
> § 2º O diploma, quando revalidado, deverá adotar a nomenclatura original do grau obtido pelo(a) requerente, devendo constar, em apostilamento próprio, quando couber, grau afim utilizado no Brasil correspondente ao grau original revalidado.

> Art. 11. Cursos estrangeiros cujos diplomas já tenham sido objeto de revalidação nos últimos 10 (dez) anos receberão tramitação simplificada.
> § 1º A tramitação simplificada deverá se ater, exclusivamente, à verificação da documentação comprobatória da diplomação no curso especificada no art. 7º, observado o disposto no art. 4º, desta Resolução, prescindindo de análise aprofundada ou processo avaliativo específico.

Perante as considerações acima expostas, pode-se concluir que:

A UFRGS considerou que 1 crédito equivale a 15 horas, então multiplicou 315 créditos por 15, totalizando 4.725 horas, conforme verifica-se no parecer da própria Universidade. Em contrapartida, a CEF-CAU/RS considerou que 1 crédito equivale a 8 horas, totalizando 2.520 horas, conforme verifica-se na análise do conteúdo programático apresentado pelo requerente. Excetuando-se as 150 horas cumpridas por exigência da UFRGS, o que totaliza as 2.670 horas apresentadas na planilha MATRIZ CURRICULAR DE ANÁLISE DE CORRESPONDÊNCIA DE CURSO anexa;

Segundo a Resolução CNE/CES nº 8, de 2007, art. 6º:

> Art. 6º A comissão de que trata o artigo anterior deverá examinar, entre outros, os seguintes aspectos:
> [...]
> III – correspondência do curso realizado no exterior com o que é oferecido no Brasil.
> [...]
> Art. 7º
> [...]
> § 4º Em qualquer caso, exigir-se-á que o candidato haja cumprido ou venha a cumprir os requisitos mínimos prescritos para os cursos brasileiros correspondentes.

Fica evidente que a UFGRS aparentemente não se atenta para o atendimento das Diretrizes Curriculares Nacionais do curso de graduação em Arquitetura e Urbanismo instituídas pelo Ministério da Educação (MEC) regulamentadas na Resolução CNE/CES nº 2/2010. Uma vez que o requerente não cumpriu o Núcleo de Conhecimentos Profissionais, mais especificamente o campo de saber atinente à topografia; o Trabalho de Curso; e o estágio curricular supervisionado, regulamentações apresentadas nos art. 6º e 7º da referida normativa, respectivamente.

Segundo a Resolução CNE/CES nº 3, de 2016, art. 7º:

> Art. 7º Os(as) candidatos(as) deverão apresentar, quando do protocolo do requerimento de revalidação, os seguintes documentos:
> [...]
> II - cópia do histórico escolar, registrado pela instituição estrangeira responsável pela diplomação e autenticado por autoridade consular competente, contendo as disciplinas ou atividades cursadas e aproveitadas em relação aos resultados das avaliações e frequência, bem como a tipificação e o aproveitamento de estágio e outras atividades de pesquisa e extensão, classificadas como obrigatórias e não obrigatórias;

Pode-se observar que a resolução solicita (1) disciplinas e atividades cursadas e aproveitadas e (2) a tipificação e o aproveitamento de outras atividades de pesquisa e extensão (obrigatórias e não obrigatórias).

Ao analisar o conteúdo programático do requerente, percebe-se que as disciplinas cursadas apresentam tanto a quantificação de *workload* – carga de trabalho (horas de aula) – como os *credits points* (pontos de crédito europeu – ECTS), como, por exemplo, no recorte apresentado abaixo (Anexo V - Conteúdo Programático), que ao multiplicarmos os 15 pontos de crédito temos 225 horas contra 120 horas "de aula", o que nos mostra 105 horas "não esclarecidas" no conteúdo programático cumprido.

Foi a partir deste documento que a CEF-CAU/RS constatou que 1 crédito equivale a 8 horas, pela divisão das 120 horas (*workload*) pelo número de créditos (*credit points*).

Module	AR101ab
Subject	SUBJECT STUDIES
Level	Preliminary/Level One
Duration	21 weeks
Workload	120 hours
Credit Points	15
Designation	REQUIRED FOR RIBA PART 1 EXEMPTION
Prerequisites	

Quanto ao programa de estudos (*syllabus*) da disciplina citada na imagem acima, constam assistência a explanações-palestras (*lectures*), seminários e aulas (classes), todavia não há uma clara descrição de como isso é contemplado quanto a aulas e pontos de créditos.

Segundo o art. 7º, § 2º, da Resolução CNE/CES nº 3, de 2016:

> § 2º O diploma, quando revalidado, deverá adotar a nomenclatura original do grau obtido pelo(a) requerente, devendo constar, em apostilamento próprio, quando couber, grau afim utilizado no Brasil correspondente ao grau original revalidado.

Nota-se que no diploma em análise consta que: recebeu o *DIPLOMA OF HIGHER EDUCATION* tendo completado e aprovado no programa em *ARCHITECTURE*. Ao pesquisar diplomas na língua inglesa, na rede mundial de computadores, localizaram-se as seguintes denominações quanto ao grau de dimplomação: *bachelor of architecture; master of architecture; doctorate of architecture*; semelhantes aos diplomas no Brasil conferidos aos concluintes plenos de cursos de arquitetura.

Demonstra-se, portanto, que não se trata apenas de presumir a habilidade ou o grau do candidato em sua solicitação de registro, mas principalmente avaliar o modo como a revalidação de diploma e a equivalência curricular foram analisadas neste caso. Tendo em vista que a CEF-CAU/RS, ao realizar a

análise dos documentos apresentados pelos pretendentes ao título de Arquiteto e Urbanista, contempla as Diretrizes Curriculares Nacionais do curso de graduação em Arquitetura e Urbanismo instituídas pelo MEC.
Logo, caso elaborada nova instrução de preenchimento da planilha por parte da CEF-CAU/BR, bem como novas determinações que considerem essas diferenças nacionais e as nuanças do Sistema Europeu de Transferência e Acumulação de Créditos (ECTS), será possível ter mais celeridade neste e nos demais processos de requerimento de registro dos diplomados no exterior, principalmente face às 3.600 horas mínimas de conteúdos comprovados e documentados vigentes no Brasil. De modo a reforçar este apontamento, segue a Deliberação n° 027/2019 – CEF-CAU/RS (Anexo IV).

CONSIDERAÇÕES JURÍDICAS/ FUNDAMENTAÇÃO LEGAL

O zelo do CAU/RS na concessão de atribuições decorre do seu papel fiscalizador. Diante da extensão da atividade delegada pelo poder público aos conselhos de fiscalização, calha transcrever lição do Ministro Humberto Martins, ao julgar o Agravo Regimental no Recurso Especial n° 895.881/RJ, *in verbis*:

> Demais disso, é conveniente destacar que o Poder Judiciário deve ser cauteloso ao interferir nos requisitos eleitos pelos órgãos de classe e afins para selecionar e autorizar o exercício de especialidades profissionais, especialmente na área da Saúde Pública. Com efeito, os conselhos profissionais e os órgãos de classe de natureza técnico-científica, como a agravada, são autênticos herdeiros das antigas guildas e corporações de ofício, que exerciam uma função protetiva aos interesses de seusintegrantes, seja interna, mediante a realização de uma espécie de reserva de mercado, seja externa, coibindo a atuação de fornecedores ou empregadores. A função externa terminou por ser açambarcada pelos sindicatos, que a manifestam por intermédio de greves e outros mecanismos de autotutela. Historicamente, porém, a função interna transformou-se de um meio de defesa da profissão contra a entrada de novos agentes em um instrumento de defesa da própria Sociedade. **A limitação do exercício profissional a pessoas habilitadas não é mais possível de ser confundida com uma mesquinha reserva ou contenção de mercado, desde que, por óbvio, efetivada nas balizas legais. Trata-se, na atualidade, de uma delegação pública aos conselhos para que selecionem seus membros e exijam-lhes probidade e perícia no desempenho de seu ofício, conforme o princípio da razoabilidade. De saliente meio de proteção de classe, o poder disciplinar dos conselhos tornou-se necessário mister de execução sócio-deontológica. Essa diferenciação é bem nítida no julgamento realizado em 17.7.1961, pelo Primeiro Senado do Tribunal Constitucional Alemão (1 BvL 44/55), quando se evidenciou que o devido exercício profissional de um ofício pressupõe conhecimentos e habilidades que podem ser adquiridos somente por meio da formação teórica e prática.** Desse modo, o legislador determina "detalhadamente os conhecimentos e habilidades necessários, além do tipo e do modo como eles devem ser adquiridos . Ao fazê-lo, o elaborador das leis visa ao interesse coletivo, preservando os indivíduos do contato com um profissional leniente ou desprovido de condições técnicas para a oferta de seus serviços. Quando, a despeito disso, ainda se efetiva o dano, a sanção é imprescindível." (sem os grifos no original com nossos grifos).

O conhecimento técnico não se presume, devendo ser comprovado por meio de análise das disciplinas cursadas no curso diplomado, haja vista as especificidades do curso de arquitetura e urbanismo do Brasil e da própria sistemática da Lei 12.378/2010 que delegou ao CAU o registro.

É razoável que a arquitetura e urbanismo seja exercida apenas por quem efetivamente cursou e foi aprovado em uma faculdade, quem tem destreza e efetivo conhecimento técnico. Daí que a lei 12.378/2010 condicione a atuação como arquiteto e urbanista à prévia admissão no CAU.

A prática do exercício ilegal da arquitetura e urbanismo é contravenção penal, conforme artigo 47º do Decreto-Lei nº 3.688/1941. A pena consiste de prisão simples, de 15 dias a três meses, ou multa. A Lei Federal nº 12.378/2010 diz também que é ilegal exercer a profissão de arquitetura e urbanismo ou apresentar-se como tal sem registro no CAU.
Referidas normas são válidas, eis que é indiscutível o elevado risco social presente na atividade de quem se dispõe a intervir no espaço urbanístico, construção civil e outras tantas atribuições.

Apenas profissionais efetivamente capazes, habilitados, podem atuar nesse âmbito. Semelhante raciocínio se impõe quanto à uma vasta gama de profissões, cujo desempenho demanda prova de alguma acurácia e expertise. Esse é o caso, por exemplo, da advocacia (arts. 3º e 8º da lei 8906/1994), da engenharia civil (art. 6º da lei 5.194/1966), da atividade farmacêutica (art. 57, lei 5991/1973), contabilidade (art. 26 da lei 9.295/1946), etc.

O mesmo não ocorre, todavia, quanto a outras profissões que, conquanto extremamente relevantes, demandam requisitos menores. Esse é o caso dos pedreiros, office-boys, carpinteiros, cantores etc.

Embora a Constituição tenha condicionado a liberdade de exercício profissional à edição de leis infraconstitucionais, isso não se traduz no reconhecimento automático da validade das normas assim produzidas. A legislação não pode simplesmente esvaziar referida garantia.

Importante trazer a lição de Ingo Wolfgang Sarlet: "Considerando a finalidade da autorização constitucional para a restrição da liberdade de profissão, a fixação de exigências e qualificações profissionais evidentemente deverá guardar relação com a peculiaridade das funções a serem desempenhadas, não se tolerando, de resto, restrições de caráter discriminatório." (SARLET, Ingo Wolfgang; MARINONI, Luiz Guilherme; MITIDIERO, Daniel. Curso de direito constitucional. 3. ed. rev. ampl. São Paulo: RT, p. 512).

De todo modo, como a competência para homologar o registro cabe ao CAU/BR e, considerando que a UFRGS tem competência para revalidar o diploma, conforme a Lei nº 9.394/1996, a qual estabelece as diretrizes e bases da educação nacional, é importante que a CEF-CAU/RS mantenha o posicionamento exposto nesta deliberação, pois, ao que parece, a UFRGS e, talvez, outras Instituições de Ensino Superior (IES) deveriam estar cientes da fundamentação explanada, especialmente quanto à necessidade de redefinir a planilha de equivalência curricular.

Importante informar de que também há jurisprudência desfavorável aos conselhos de fiscalização profissional. Alguns julgados do Tribunal Regional Federal (TRF) certificam que a autonomia para exercer o poder de polícia, nesta questão, seria apenas conferido legalmente às universidades públicas e não aos Conselhos profissionais.

VOTO:

1. Por revogar a Deliberação nº 027/2018 – CEF/CAU/RS, datada de 19 de outubro de 2018, que dispôs sobre a apreciação do requerimento de registro profissional de Mauro Slomp, com diploma de graduação em Arquitetura expedido em pela *University of North London* e revalidado pela UFRGS, tendo em vista a necessidade de apresentar à Comissão de Ensino e Formação do CAU/BR novos fatos e, consequentemente, nova fundamentação acerca do requerimento de registro do requerente;

2. Por apresentar à Comissão de Ensino e Formação do CAU/BR os dados do interessado e sua formação profissional, mantendo a sugestão do **INDEFERIMENTO** do registro de ARQUITETO E URBANISTA no CAU concedendo as atribuições previstas no artigo 3º da Resolução CAU/BR nº 21, de 05 de abril de 2012, para o desempenho das atividades nele relacionadas;

3. Por sugerir ao CAU/BR que contate o *Royal Institute of British Architects (RIBA)*, organização profissional de arquitetos do Reino Unido, para buscar esclarecimentos acerca da formação no curso de Arquitetura e nas habilitações legais para exercer a profissão de Arquiteto naquele país; e

4. Por encaminhar a presente Deliberação à Presidência do CAU/RS para, nos termos do art. 116, do Regimento Interno do CAU/RS, submetê-la ao Plenário deste Conselho para conhecimento e posterior envio ao CAU/BR em conformidade com o estabelecido na Resolução CAU/BR n° 26/2012.

Porto Alegre, 1° de novembro de 2019.

José Arthur Fell
Conselheiro Relator

PROCESSO	Protocolo SICCAU nº 659638/2018
ASSUNTO	Revoga e substitui a Deliberação nº 027/2018 – CEF – CAU/RS que dispõe sobre a apreciação do requerimento de registro profissional de MAURO SLOMP, com diploma de graduação em Arquitetura expedido em 05/07/2002 pela *University of North London*, da cidade de Londres, na Inglaterra, e revalidado pela Universidade Federal do Rio Grande do Sul em 24 de março de 2015.

DELIBERAÇÃO Nº 043/2019 – CEF – CAU/RS

A COMISSÃO DE ENSINO E FORMAÇÃO (CEF-CAU/RS), reunida ordinariamente em Porto Alegre/RS, na sede do CAU/RS, no dia 1º de novembro de 2019, no uso de suas competências que lhe conferem incisos I e VII do art. 93 do Regimento Interno do CAU/RS, após análise do assunto em epígrafe, e

Considerando a Lei nº 12.378/2010, que regulamenta o exercício da Arquitetura e Urbanismo, cria o CAU/BR e os Conselhos de Arquitetura e Urbanismo dos Estados e do Distrito Federal - CAUs;

Considerando as atribuições estabelecidas no artigo 2º da mesma lei, e detalhadas no artigo 3º da Resolução CAU/BR nº 21/2012;

Considerando a Resolução CAU/BR nº 26/2012, que dispõe sobre o registro de arquitetos e urbanistas, brasileiros ou estrangeiros portadores de visto permanente, diplomados por instituições de ensino estrangeiras, nos Conselhos de Arquitetura e Urbanismo dos Estados e do Distrito Federal (CAU/UF), e dá outras providências;

Considerando a Resolução CAU/BR nº 35/2012, que dispõe sobre o registro temporário no Conselho de Arquitetura e Urbanismo (CAU) de arquitetos e urbanistas, brasileiros ou estrangeiros, diplomados no exterior, e dá outras providências;

Considerando que Resolução CAU/BR nº 26/2012 incumbe à CEF-CAU/RS a análise comparativa entre as disciplinas cursadas pelo interessado e as Diretrizes Curriculares do curso de graduação em Arquitetura e Urbanismo instituídas pelo Ministério da Educação (MEC), culminando na planilha MATRIZ CURRICULAR DE ANÁLISE DE CORRESPONDÊNCIA DE CURSO (feita de acordo com o art. 6º, inciso III, da Resolução CNE/CES nº 1/ 2002);

Considerando que a Universidade Federal do Rio Grande do Sul, embora seja instituição de ensino reconhecida perante o Ministério de Educação e Cultura, emitiu a Apostila de Revalidação, em 24 de março de 2015, conferindo o título de Arquiteto e Urbanista ao requerente, conforme pode-se verificar:

> *"O diploma de Graduação de Arquitecture, expedido em 05 de julho de 2002 pela University of North London – Inglaterra, de* ***Mauro Slomp****, brasileiro, natural do Rio Grande do Sul, cédula de identidade nº 8007832309/RS, foi* ***Revalidado*** *nesta Universidade, correspondendo ao título de* ***Arquiteto e Urbanista****, com validade em todo o território nacional, considerando o disposto no Art. 48, § 2º, da Lei no 9.394, de 20 de dezembro de 1996 e na Resolução CNE/CES nº 1, de 28 de janeiro de 2002, alterada pela Resolução CNE/CES nº 8 de 04 de outubro de 2007."*

Considerando a fundamentação do Conselheiro relator.

DELIBEROU:

1. Por revogar a Deliberação nº 027/2018 – CEF/CAU/RS, datada de 19 de outubro de 2018, que dispôs sobre a apreciação do requerimento de registro profissional de Mauro Slomp, com diploma de graduação em Arquitetura expedido em pela *University of North London* e revalidado pela UFRGS, tendo em vista a necessidade de apresentar à Comissão de Ensino e Formação do CAU/BR novos fatos e, consequentemente, nova fundamentação acerca do requerimento de registro do requerente;

2. Por apresentar à Comissão de Ensino e Formação do CAU/BR os dados do interessado e sua formação profissional, mantendo a sugestão do **INDEFERIMENTO** do registro de ARQUITETO E URBANISTA no CAU concedendo as atribuições previstas no artigo 3º da Resolução CAU/BR nº 21, de 05 de abril de 2012, para o desempenho das atividades nele relacionadas:

1 - IDENTIFICAÇÃO DO INTERESSADO	
Nome completo	Mauro Slomp
Nacionalidade	Brasileiro
Naturalidade	Caxias do Sul
Data de nascimento	18/10/1963
Carteira de identidade	8007832309
CPF	436.801.860-53
Endereço completo de residência no Brasil	Rua Boa Saúde nº 940, Bairro Primavera – Novo Hamburgo/RS

2 - FORMAÇÃO PROFISSIONAL	
Instituição de formação	*University of North London*
Curso de formação	Arquitetura
Cidade	Londres
País	Inglaterra
Data de expedição do diploma	05 de julho de 2002

3 - REVALIDAÇÃO DO DIPLOMA	
Instituição de revalidação	Universidade Federal do Rio Grande do Sul
Cidade	Porto Alegre
UF	Rio Grande do Sul
Data de expedição	24 de março de 2015

3. Por encaminhar a presente Deliberação à Presidência do CAU/RS para, nos termos do art. 116, do Regimento Interno do CAU/RS, submetê-la ao Plenário deste Conselho para conhecimento e posterior envio ao CAU/BR em conformidade com o estabelecido na Resolução CAU/BR nº 26/2012.

Porto Alegre, 1º de novembro de 2019.

CLAUDIO FISCHER
Coordenador
RODRIGO SPINELLI
Coordenador Adjunto
JOSÉ ARTHUR FELL
Membro
PAULO RICARDO BREGATTO
Membro
ANA ROSA SULZBACH CÉ
Suplente

ALEXANDRE COUTO GIORGI _____
Suplente
ANTÔNIO CÉSAR C. DA ROCHA _____
Suplente
MAURÍCIO ZUCHETTI _____
Suplente

ANEXO I
RESOLUÇÃO Nº 26, DE 06 DE JUNHO DE 2012, ALTERADA PELA RESOLUÇÃO Nº 87, DE 12 DE SETEMBRO DE 2014.
ANEXO II
EQUIVALÊNCIA CURRICULAR
MAURO SLOMP

Matérias do currículo[1]		**Histórico escolar do curso estrangeiro**	
		Disciplinas	**Carga horária**
Núcleo de Conhecimentos de Fundamentação	Estética e história das artes	Conteúdo não apresentado	-
	Estudos sociais e econômicos	Conteúdo não apresentado	-
	Estudos ambientais	Conteúdo abordado dentro de Tecnologia (AR102.0) e Tecnologia (AR202.0)	-
	Desenho e meios de representação e expressão	Estudos de desenho e oficina	120
Subtotal			**120**

Núcleo de Conhecimentos Profissionais	Teoria e história da arquitetura, do urbanismo e do paisagismo	História da Arquitetura Ocidental (*AR101.0 History of Western Architecture*)	120
		Arquitetura Europeia (História Moderna) (*AR207.0 European Architecture (Modern History)*)	120
	Técnicas retrospectivas	Conteúdo apresentado na revalidação	-
	Projetos de Arquitetura, de Urbanismo e de Paisagismo	Projeto Arquitetônico 1 (A) (*AR105.0 Architectural Design 1 (A)*)	120
		Projeto Arquitetônico 1 (B) (*AR106.0 Architectural Design 1 (B)*)	240
		Desenvolvimento de projeto (*AR107.0 Design Development*)	120
		Projeto Arquitetônico 2 (A) (*AR204.0 Architectural Design 2 (A)*)	240
		Projeto Arquitetônico 2 (B) (*AR205.0 Architectural Design 2 (B)*)	240
		Desenvolvimento de projeto (*AR206.0 Design Development*)	120
		Projeto Arquitetônico 3 (A) (*AR304.0 Architectural Design 3 (A)*)	240
		Projeto Arquitetônico 3 (B) (*AR305.0 Architectural Design 3 (B)*)	240
		Desenvolvimento de projeto (*AR306.0 Design Development*)	120
	Tecnologia da construção	Estudo do Edifício (*AR203.0 Building Study*)	120
		Tecnologia (*AR102.0 Technology*)	120

[1] Resolução CNE-CES nº 2, de 17 de junho de 2010 e Resolução CNE nº 2, de 18 de junho de 2007.

	Sistemas estruturais	Tecnologia (*AR202.0 Technology*)	120
		Conteúdo abordado dentro de Tecnologia da Informação (AR103.0)	-
	Conforto ambiental	Tecnologia (*AR102.0 Technology*)[2]	-
		Tecnologia (*AR202.0 Technology*)[3]	-
	Topografia	Conteúdo não apresentado	-
	Informática Aplicada à Arquitetura e Urbanismo	Tecnologia da informação (*AR103.0 Information of Technology*)	120
	Planejamento urbano e regional	Conteúdo abordado dentro de Projeto Arquitetônico 2 (B) (*AR205.0 Architectural Design 2 (B)*; Projeto Arquitetônico 3 (A) (*AR304.0 Architectural Design 3 (A)*); Projeto Arquitetônico 3 (B) (*AR305.0 Architectural Design 3 (B)*	-
Subtotal			**2.400**

Trabalho de Curso	Não apresentado	-
Subtotal		

Estagio curricular supervisionado	Não apresentado	-
Subtotal		

Exigências cumpridas na *revalidação	TÉCNICAS RETROSPECTIVAS	60
	LEGISLAÇÃO E EXERCÍCIO PROFISSIONAL NA ARQUITETURA	30
	PLANEJAMENTO E GESTÃO URBANA	60
Subtotal		**150**

Carga horária mínima	**3.600 horas-aulas**	**Total da carga horária**	**2.670 hora-aula**

[2] Tecnologia AR102 possui estudos de materiais, estruturas e conforto da construção.
[3] Tecnologia AR202 possui estudos de materiais, estruturas e conforto da construção.

ANEXO II
OFÍCIO PRES-CAU/RS Nº 361/2018

Ofício PRES-CAU/RS nº 361/2018.

Porto Alegre, 11 de dezembro de 2018.

A Sua Senhoria o Senhor
Arquiteto e Urbanista José Carlos Freitas Lemos
Coordenador do Curso de Arquitetura e Urbanismo
Universidade Federal do Rio Grande do Sul – UFRGS
jose.lemos@ufrgs.br

Assunto: **Solicitação de esclarecimentos sobre diploma de instituição de ensino estrangeira revalidado pela UFRGS.**

Prezado Coordenador,

O CONSELHO DE ARQUITETURA E URBANISMO DO RIO GRANDE DO SUL – CAU/RS, Autarquia Pública Federal, com competência legal para "zelar pela dignidade, independência, prerrogativas e valorização da arquitetura e urbanismo", conta com a Comissão Permanente de Ensino e Formação- CEF-CAU/RS, a qual tem entre suas finalidades a análise dos requerimentos de registro de profissionais diplomados no exterior, com diploma revalidado por instituições de ensino brasileiras. Tal análise é feita segundo o rito estabelecido pelas Resoluções nº 26/2012, nº 63/2013, nº 87/2014, nº 123/2016 e nº 132/2017, cabendo à CEF do CAU/BR a decisão final sobre o registro.

Ao efetuar a análise do requerimento do Sr. Mauro Slomp, com diploma emitido em 05 de julho de 2002 pela *University of North London* e revalidado pela Universidade Federal do Rio Grande do Sul em 24 de março de 2015, a CEF-CAU/RS identificou algumas inconformidades entre o currículo cursado pelo interessado e a legislação brasileira, que inviabilizam o registro no CAU e decidiu consultar a UFRGS, instituição revalidadora, sobre os critérios adotados neste caso para conceder o diploma, considerando os seguintes pontos:

a) O requerente cumpriu carga horária total de **2.670** horas-aula, conforme identificado no conteúdo programático, número inferior ao mínimo de 3.600 horas-aula exigido pela Resolução nº 2, de 18 de junho de 2007, da CES/CNE- Ministério de Educação e Cultura;

b) O requerente apresenta tempo de integralização de **três anos**, número inferior ao mínimo de cinco anos exigido pela Resolução nº 2, de 18 de junho de 2007, da CES/CNE- Ministério de Educação e Cultura;

c) A equivalência curricular entre as disciplinas cursadas pelo interessado e as Diretrizes Curriculares instituídas pelo MEC foi verificada por esta Comissão, e constatou-se que o requerente não apresenta todos os conteúdos mínimos exigidos, conforme apresentado na planilha de equivalência curricular que encaminhamos em anexo.

Rua Dona Laura, nº 320, 14º andar, bairro Rio Branco - Porto Alegre/RS - CEP: 90430-090 | Telefone: (51) 3094.9800 | www.caurs.gov.br

Solicitamos, portanto, manifestação dessa prestigiosa instituição de ensino com esclarecimentos que possam subsidiar a posição do CAU/RS quanto ao requerimento de registro.

Apresentamos nossos cumprimentos e colocamos o Conselho à sua disposição.

Atenciosamente,

Tiago Holzmann da Silva
Presidente
CAU/RS

TIAGO HOLZMANN DA SILVA
Presidente do CAU/RS

Rua Dona Laura, nº 320, 14º andar, bairro Rio Branco - Porto Alegre/RS - CEP: 90430-090 | Telefone: (51) 3094.9800 | www.caurs.gov.br

RESOLUÇÃO Nº 26, DE 06 DE JUNHO DE 2012, ALTERADA PELA RESOLUÇÃO Nº 87, DE 12 DE SETEMBRO DE 2014.
ANEXO II
EQUIVALÊNCIA CURRICULAR
MAURO SLOMP

Matérias do currículo[1]		Histórico escolar do curso estrangeiro	
		Disciplinas	Carga horária
Núcleo de Conhecimentos de Fundamentação	Estética e história das artes	Conteúdo não apresentado	-
	Estudos sociais e econômicos	Conteúdo não apresentado	-
	Estudos ambientais	Conteúdo abordado dentro de Tecnologia (AR102.0) e Tecnologia (AR202.0)	-
	Desenho e meios de representação e expressão	Estudos de desenho e oficina	120
Subtotal			**480**

Núcleo de Conhecimentos Profissionais	Teoria e história da arquitetura, do urbanismo e do paisagismo	História da Arquitetura Ocidental (*AR101.0 History of Western Architecture*)	120
		Arquitetura Europeia (História Moderna) (*AR207.0 European Architecture (Modern History)*)	120
	Técnicas retrospectivas	Conteúdo apresentado na revalidação	-
	Projetos de Arquitetura, de Urbanismo e de Paisagismo	Projeto Arquitetônico 1 (A) (*AR105.0 Architectural Design 1 (A)*)	120
		Projeto Arquitetônico 1 (B) (*AR106.0 Architectural Design 1 (B)*)	240
		Desenvolvimento de projeto (*AR107.0 Design Development*)	120
		Projeto Arquitetônico 2 (A) (*AR204.0 Architectural Design 2 (A)*)	240
		Projeto Arquitetônico 2 (B) (*AR205.0 Architectural Design 2 (B)*)	240
		Desenvolvimento de projeto (*AR206.0 Design Development*)	120
		Projeto Arquitetônico 3 (A) (*AR304.0 Architectural Design 3 (A)*)	240
		Projeto Arquitetônico 3 (B) (*AR305.0 Architectural Design 3 (B)*)	240
		Desenvolvimento de projeto (*AR306.0 Design Development*)	120
	Tecnologia da construção	Estudo do Edifício (*AR203.0 Building Study*)	120
	Sistemas estruturais	Tecnologia (*AR102.0 Technology*)	120
		Tecnologia (*AR202.0 Technology*)	120
		Conteúdo abordado dentro de Tecnologia da Informação (AR103.0)	-
		Tecnologia (*AR102.0 Technology*)[2]	-

[1] Resolução CNE-CES nº 2, de 17 de junho de 2010 e Resolução CNE nº 2, de 18 de junho de 2007.
[2] Tecnologia AR102 possui estudos de materiais, estruturas e conforto da construção.

Rua Dona Laura, nº 320, 14º andar, bairro Rio Branco - Porto Alegre/RS - CEP: 90430-090 | Telefone: (51) 3094.9800 | www.caurs.gov.br

	Conforto ambiental	Tecnologia (*AR202.0 Technology*)[3]	-
	Topografia	Conteúdo não apresentado	-
	Informática Aplicada à Arquitetura e Urbanismo	Tecnologia da informação (*AR103.0 Information of Technology*)	120
	Planejamento urbano e regional	Conteúdo abordado dentro de Projeto Arquitetônico 2 (B) (*AR205.0 Architectural Design 2 (B)*; Projeto Arquitetônico 3 (A) (*AR304.0 Architectural Design 3 (A)*); Projeto Arquitetônico 3 (B) (*AR305.0 Architectural Design 3 (B)*	-
Subtotal			**2400**

Trabalho de Curso	Não apresentado	-
Subtotal		

Estagio curricular supervisionado	Não apresentado	-
Subtotal		

Exigências cumpridas na *revalidação	TÉCNICAS RETROSPECTIVAS	60
	LEGISLAÇÃO E EXERCÍCIO PROFISSIONAL NA ARQUITETURA	30
	PLANEJAMENTO E GESTÃO URBANA	60
Subtotal		**150**

Carga horária mínima	**3.600 horas-aulas**	**Total da carga horária**	**2.670 hora-aula**

[3] Tecnologia AR202 possui estudos de materiais, estruturas e conforto da construção.

Rua Dona Laura, nº 320, 14º andar, bairro Rio Branco - Porto Alegre/RS - CEP: 90430-090 | Telefone: (51) 3094.9800 | www.caurs.gov.br

ANEXO III
OFÍCIO PRES-CAU/RS Nº 244/2019

Ofício PRES-CAU/RS nº 244/2019

Porto Alegre, 09 de maio de 2019.

A Sua Senhoria o Senhor
Prof. Vladimir Pinheiro do Nascimento
Pró Reitoria de Graduação
Universidade Federal do Rio Grande do Sul
Av. Paulo Gama, 110, 7º andar da Reitoria, Campus Central, Porto Alegre, RS
prograd@prograd.ufrgs.br

Assunto: **Processo Administrativo nº. 23078.024916/11-74 – revalidação de diploma de graduação**

Prezado Senhor,

1. Em dezembro de 2018, o Conselho de Arquitetura e Urbanismo do Rio Grande do Sul, autarquia federal no uso de suas atribuições legais, por intermédio da sua Comissão de Ensino e Formação (CEF-CAU/RS), a qual tem dentre as suas finalidades a de analisar os requerimentos de registro de profissionais diplomados no exterior, com diploma revalidado por instituições de ensino brasileiras, nos termos das Resoluções n.º 26/2012, 63/2013, 87/2014, 123/2016 e 132/2017, enviou ofício ao Coordenador do Curso de Arquitetura e Urbanismo da Universidade Federal do Rio Grande do Sul – UFRGS (Ofício PRES n.º 361/2018 – em anexo).

2. Tal ofício versa sobre o requerimento do Sr. Mauro Slomp, cujo diploma obtido na Inglaterra foi revalidado pela UFRGS, em decisão da Comissão de Graduação do Curso de Arquitetura e Urbanismo.

3. Ocorre que a CEF-CAU/RS, visando a cumprir o regramento atinente à revalidação, analisou os documentos entregues com o requerimento e, em razão de algumas inconformidades, solicitou esclarecimentos a esta Universidade sobre algumas questões na documentação do interessado que poderiam inviabilizar o deferimento. Isso foi feito por meio do Ofício PRES n.º 361/2018, para o qual, no entanto, não houve resposta até o presente momento.

4. Dentre as questões levantadas, destaca-se que a carga horária cursada pelo interessado não era informada na documentação apresentada à UFRGS, constando apenas o número de créditos cursados pelo Sr. Mauro Slomp. Para obter a carga horária cursada, os professores avaliadores da Comissão de Graduação consideraram que cada crédito corresponderia a 15 horas, totalizando 4.725 horas, número superior ao mínimo estabelecido pelo MEC, de 3.600 horas.

5. Contudo, a CEF-CAU/RS, a partir da análise do conteúdo programático e histórico escolar – a qual é imprescindível e indissociável ao registro nesse Conselho – identificou a relação 8 horas para cada crédito totalizando 2.520 horas, número este inferior à citada carga horária mínima admissível para cursos de graduação em arquitetura e urbanismo. Isso, portanto, inviabilizaria por completo o registro no CAU.

6. Por conta disso, os esclarecimentos solicitados no referido Ofício são essenciais para o prosseguimento dos trâmites legais do processo no CAU, especialmente porque sem tais dados haverá apenas a opção do indeferimento do registro perante o Conselho. Mais do que isso, não tendo sido cumpridos os requisitos, aconselhar-se-ia, inclusive, a UFRGS a rever o seu posicionamento quando do apostilamento do diploma do candidato, utilizando-se da Súmula 473 do Supremo Tribunal Federal: *"a administração pode anular seus próprios atos, quando eivados de vícios que os tornam ilegais, porque deles não se originam direitos; ou revogá-los, por motivo de conveniência ou oportunidade, respeitados os direitos adquiridos, e ressalvada, em todos os casos, a apreciação judicial"*.

7. Todavia, antes que se chegue a medidas deveras sérias, é imperioso que a documentação requerida seja analisada. Dessa sorte, contamos com a sua compreensão e ficamos no aguardo das respostas aos questionamentos feitos, visando a dar prosseguimento ao processo com lisura e celeridade.

Atenciosamente,

Tiago Holzmann da Silva
Presidente
CAU/RS

TIAGO HOLZMANN DA SILVA
Presidente do CAU/RS

SERVIÇO PÚBLICO FEDERAL

Proc. n.º 23078.007086/19-11

Universidade Federal do Rio Grande do Sul

À CE/ARQUITETURA, para providências.
Em 31/05/19
André M. Santos
André Moreira dos Santo.
Assistente em Administração
PROGRAD/UFRGS

AO DEPARTAMENTO DE ARQUITETURA.
ENCAMINHAR PARA OS MEMBROS DA COMISSÃO AVALIADORA DA REVALIDAÇÃO DO DIPLOMA DO SR. MAURO SIOMPI, PROCESSO Nº 23078.024916/11-74. SOLICITA-SE ESCLARECIMENTO CONFORME OFÍCIO PRES-CAU/RS Nº 244/2019.

ELIANE CONSTANTINOU
Coordenadora
COMGRAD/ARQ-UFRGS

PARECER Nº 01/2019

Arq. Tiago Holzman da Silva
Presidente do CAU/RS

Tendo em vista a consulta por esta instituição ao processo de revalidação de diploma do Sr. Mauro Slomp, temos a apontar o seguinte;

1º. Quantidade de horas: foi tomado o valor básico e universal de 15 horas por crédito e totalizadas as horas segundo o número de créditos informados;

2º. Tempo de integralização: na folha 18 do processo no documento intitulado "Diploma Supplement" consta que a duração do programa (Official length of program) pode ser de 2 a 6 anos, "dependendo do modo de estudo" (two to six years depending on the mode of study) e logo abaixo especifica que os modos de estudo podem ser em tempo integral ou parcial (full and part time) .

Com relação ao 1º item esclarecemos que este padrão era aceito como fator quando a quantidade de horas não aparecia de forma explícita. Na época a instrução era de que o mesmo fosse avaliado apenas com a documentação constante no processo. No caso do uso do padrão ECTS as equivalências não estavam como hoje acessíveis pela internet. De qualquer forma, mesmo hoje, o padrão ECTS é para correspondência de currículos entre escolas europeias, exclusivamente. Consultando o site https://student.londonmet.ac.uk/media/london-metropolitan-university/london-met-documents/professional-service-departments/academic-registry/academic-regulations/split-up-regs/6.1.pdf, podemos verificar que, hoje, para a Universidade de Londres, a correspondência de carga horária ECTS é de 10 horas.

No que tange ao 2º item colocamos em questão o fato de que o aluno em questão iniciou o curso em 1994 e só ter se diplomado em 2002, perfazendo oito anos após o início do curso. No material recebido nada consta com relação ao término das disciplinas, mas dá o aluno como aprovado nas mesmas.

Reiteramos que o diploma foi revalidado segundo a legislação vigente da época. As normas para revalidação estabelecidas pelo Conselho Nacional de Educação (CNE) para diplomas de graduação expedidos por estabelecimentos estrangeiros de ensino superior

são as estabelecidas pela Resolução nº 8, de 4 de outubro de 2007, que em seu texto estabelece que a equivalência dos diplomas quanto ao currículo, títulos ou habilitações deve ser entendida "em sentido amplo, de modo a abranger áreas congêneres, similares ou afins, aos que são oferecidos no Brasil" (Art. 2º). As demais resoluções vigentes do CNE à época como a **nº 2** de **18 de junho de 2007** e a **nº 2** de **17 de junho de 2010**, do mesmo órgão, são referências para cursos oferecidos no país.

Sendo o que tínhamos para o o momento, subscrevêmo-nos.

Porto Alegre, 02 de Agosto de 2019.

Prof. Dra. Daniela Mendes Cidade

Prof. Dra. Underlea Miotto Bruscato

Prof. Dr. Roni Anzolch

ANEXO IV
DELIBERAÇÃO Nº 27/2019 – CEF-CAU/RS

PROCESSO	Protocolo SICCAU nº 659638/2018.
ASSUNTO	Diligências à CEF-CAU/BR sobre requerimentos de registro de profissional diplomados no exterior e análise dos respectivos históricos escolares.

DELIBERAÇÃO Nº 027/2019 – CEF-CAU/RS

A COMISSÃO DE ENSINO E FORMAÇÃO – CEF-CAU/RS, reunida extraordinariamente em Porto Alegre – RS, na sede do CAU/RS, no dia 06 de setembro 2019, no uso das competências que lhe conferem o artigo 102 da Resolução CAU/BR nº 139/2017 e o artigo 93 do Regimento Interno do CAU/RS, após análise do assunto em epígrafe; e

Considerando o artigo 6º, §§ 1º e 2º da Lei nº 12.378/2010, que regulamenta o exercício da Arquitetura e Urbanismo, cria o CAU/BR e os Conselhos de Arquitetura e Urbanismo dos Estados e do Distrito Federal:

> *Art. 6º São requisitos para o registro:*
> *I - capacidade civil; e*
> *II - diploma de graduação em arquitetura e urbanismo, obtido em instituição de ensino superior oficialmente reconhecida pelo poder público.*
> *§ 1º Poderão obter registro no CAU dos Estados e do Distrito Federal os portadores de diploma de graduação em Arquitetura e Urbanismo ou de diploma de arquiteto ou arquiteto e urbanista, obtido em instituição estrangeira de ensino superior reconhecida no respectivo país e devidamente revalidado por instituição nacional credenciada.*
> *§ 2 Cumpridos os requisitos previstos nos incisos I e II do caput, poderão obter registro no CAU dos Estados ou do Distrito Federal, em caráter excepcional e por tempo determinado, profissionais estrangeiros sem domicílio no País.*

Considerando a Resolução CAU/BR nº 26/2012, alterada pelas Resoluções CAU/BR nº 63/2013, nº 87/2014, nº 123/2016 e nº 132/2017, que dispõe sobre o registro de arquitetos e urbanistas, brasileiros ou estrangeiros portadores de visto permanente, diplomados por instituições de ensino estrangeiras, nos Conselhos de Arquitetura e Urbanismo dos Estados e do Distrito Federal (CAU/UF), e dá outras providências;

Considerando que, em análise de equivalência curricular realizada por esta Comissão ao requerimento de registro de profissional diplomado na Inglaterra, foram contatadas inconsistências quanto à carga horária cursada pelo requerente;

Considerando que o requerente apresentou documentação com diploma reconhecido pela Universidade Federal do Rio Grande do Sul (UFRGS), cujo parecer de revalidação apresenta cálculo de horas com base na conversão dos créditos ingleses, os quais equivalem ao dobro dos créditos do Sistema Europeu de Transferência de Créditos (ECTS), culminando num total de 4.725 (quatro mil setecentos e vinte e cinco) horas totais de carga horária; conforme se pode verificar no parecer da própria Universidade:

> *"Carga Horária*
> *Partindo-se do critério de 15 horas para crédito, o currículo efetivamente cursado apresenta uma carga horária de 4.725 horas e, no conjunto agrega os conteúdos gerais estabelecidos pelo currículo mínimo."*
> *(...)*
> *"Perfil Acadêmico do interessado:*
> *O currículo em apreciação realizou-se em três anos e foi integralmente realizado na referida instituição entre os anos de 1994 e 1997, e recebeu diploma de bacharel em arquitetura ("Diploma of Higher Education") em 2002.*

O histórico escolar demonstra o melhor desempenho acadêmico do interessado nas disciplinas de projeto e desenho, e reprovações "Envirioment Building Law" e "Theorical investigations in History of Architecture and Design", cujos créditos não lhe foram atribuídos. Também consta a ausência em Prática profissional ("Architetural Professional Pratice").
Dessa forma lhe foram atribuídos 315 créditos, totalizando 4725 horas."

Considerando que o histórico escolar do requerente apresenta um total de 315 créditos ingleses que equivalem a 157,5 créditos do ECTS conforme verificado no Anexo II – Histórico Escolar, onde os créditos ingleses equivalem ao dobro dos créditos do ECTS;

Considerando que a carga horária definida pela UFRGS diverge da análise realizada pela CEF-CAU/RS, conforme demonstra o Anexo I – Relatório de Equivalência de Créditos Curriculares no Exterior e Horas Curriculares no Brasil;

Considerando que a UFRGS, ainda assim, solicitou complementação de conteúdo obrigatório ao requerente, o qual cursou e concluiu as disciplinas faltantes para comprovação de suficiência curricular;

Considerando que a CEF-CAU/RS, ao analisar o conteúdo programático apresentado pelo requerente, constatou um total de 2.550 horas (incluindo as horas de suficiência solicitadas pela UFRGS), ao passo que, no parecer da Universidade contam 4.725 horas;

Considerando que esta diferença na carga horária levou o CAU/RS a oficiar a UFRGS solicitando esclarecimentos sobre o procedimento adotado para a revalidação do diploma do requerente, e, até o momento, aguarda resposta;

Considerando que a Deliberação CEF-CAU/BR nº 10/2015, em seu item 2, orienta os CAU/UF que, para efeito de conferência de equivalência da carga horária de instituições estrangeiras signatárias da Declaração de Bolonha, quando não houver indicação da carga horária das disciplinas, poderá ser adotada a equivalência de 1 Crédito ECTS = 28 horas- relógio;

Considerando a análise justa e impessoal a fim de que se chegue a um entendimento final que possibilite a conclusão do requerimento de registro do profissional diplomado na Inglaterra feito ao CAU/RS; e

Considerando o disposto no art. 116, do Regimento Interno do CAU/RS, o qual determina que todas as deliberações exaradas pelas comissões serão encaminhadas à Presidência para conhecimento, providências, apreciação aprovação ou homologação pelo Plenário, conforme o caso.

DELIBERA:

1. Por solicitar à Presidência do CAU/RS que encaminhe ofício destinado à CEF-CAU/BR, com o objetivo de:

1.1. Encaminhar o entendimento da CEF-CAU/RS (Anexo I) quanto à equivalência entre créditos ingleses, créditos do Sistema Europeu de Transferência de Créditos (ECTS) e carga horária brasileira, feito com base no currículo analisado – que está no Protocolo SICCAU nº 659638/2018;

1.2. Solicitar informações sobre outros casos de homologação de registro de diplomados no exterior, em especial, na Inglaterra, com caso semelhante;

1.3. Solicitar esclarecimento sobre como deve ser feita a conversão dos sistemas de créditos existentes no exterior para o sistema de créditos nacionais para que se chegue à carga horária exigida no Brasil;

1.4. Sugerir ao CAU/BR que elabore uma normativa clara, para casos como o exposto, que considere o Sistema Europeu de Transferência de Créditos (ECTS), uma vez que consideramos apenas as horas do histórico escolar.

2. Por solicitar retorno aos questionamentos apresentados com maior brevidade possível, tendo em vista o tempo transcorrido desde o requerimento de solicitação de registro no CAU do profissional em questão;

3. Por encaminhar a presente Deliberação à Presidência do CAU/RS para, nos termos do art. 116, do Regimento Interno do CAU/RS, submetê-la ao Plenário deste Conselho para conhecimento.

Porto Alegre, 06 de setembro de 2019.

CLAUDIO FISCHER
Coordenador

RODRIGO SPINELLI
Coordenador Adjunto

JOSÉ ARTHUR FELL
Membro

PAULO RICARDO BREGATTO
Membro

ANA ROSA SULZBACH CÉ
Suplente

ALEXANDRE COUTO GIORGI
Suplente

ANTÔNIO CÉSAR C. DA ROCHA
Suplente

MAURÍCIO ZUCHETTI
Suplente

ANEXO I
RELATÓRIO DE EQUIVALÊNCIA DE CRÉDITOS CURRICULARES NO EXTERIOR E HORAS CURRICULARES NO BRASIL

Dispõe sobre a apreciação do requerimento de registro profissional, com diploma de graduação em Arquitetura expedido em 05/07/2002 pela *University of North London*, da cidade de Londres, na Inglaterra, e revalidado pela Universidade Federal do Rio Grande do Sul em 24 de março de 2015.

Em análise da CEF-CAU/RS todas as cargas horárias foram retiradas diretamente de dentro do documento original (em inglês, 66 páginas) que consta o conteúdo programático do interessado, em que contabilizamos um total de carga horária de 2670 horas.

Em análise paralela conforme o GE3S (Grupo de Missão para o Espaço Europeu de Ensino Superior), dentro do *website* da Universidade de Coimbra, em uma explanação sobre o Sistema Europeu de Transferência de Créditos (ECTS), a CEF-CAU/RS constatou que um ano acadêmico corresponde a 60 pontos de créditos ECTS e que são normalmente equivalentes a 1500-1800 horas de trabalho. E que:

> *"O volume de trabalho no ECTS consiste no tempo requerido para a realização de todas as actividades de aprendizagem previstas, tais como aulas presenciais, seminários, estudo independente, preparação de projectos, exames, etc.*
> *"Os créditos são atribuídos a todas as componentes educacionais de um programa de estudos (unidades curriculares, módulos, estágios, projectos, dissertações, etc.) e reflectem a quantidade de trabalho requerido."*

Já conforme o Guia de utilização ECTS[1] temos uma tabela, da qual destacamos uma pequena parte relevante para este assunto (Tabela 1):

Tabela 1 - Utilização do ECTS na União Europeia.

Lista de créditos concedidos num ano nos países europeus

Pais	Pontos de créditos por ano	Horas por ponto de crédito	Nome do ponto de crédito
União Europeia (UE)	60	25-30	Pontos de crédito ECTS
Inglaterra, Gales e Irlanda do Norte	120	10	*Credits* (*Open University – points*). Dois créditos de Inglaterra/Gales/Irlanda do Norte são equivalentes a um crédito ECTS.
Escócia	120	10	*SCQF credit points* (2 pontos SCQF equivalem a 1 ponto ECTS)

Conforme o Histórico Escolar do requerente (*Record of Learning Achievement*), o mesmo acumulou um total de 315 créditos. Assim, 315 créditos, convertidos segundo a terceira linha da Tabela 1, se tornam na União Europeia 157,5 pontos de ECTS e 2,625 anos acadêmicos europeus.

[1] WIKIPEDIA, *Sistema Europeu de Transferência e Acumulação de Créditos*, disponível em <https://pt.wikipedia.org/wiki/Sistema_Europeu_de_Transferência_e_Acumulação_de_Créditos> acessado em julho de 2019.

Também, por outro lado, 2,625 x 60 pontos de crédito por ano = 157,5 pontos de ECTS.

Temos ainda:

a) 157,5 pontos de ECTS x 30 horas = 4725 horas.

Vale lembrar que o conceito de ECTS acima exposto, inclui, além das horas em sala de aula, as horas de trabalho autônomo ou complementar. Apropriando-se deste conceito, implica-se que, subtraindo-se das horas acima as 2550 horas analisadas no conteúdo programático realizado em sala de aula, conclui-se que:

b) 4725 horas - 2550 horas = 2175 horas extras de trabalho autônomo ou complementar.

O que mostra que as 2550 horas efetivas de aula equivalem a 47,62% das horas totais e 2175 equivalem a um percentual de 52,38% das horas totais aparentemente destinados para "seminários, estudo independente, preparação de projectos, exames, etc". Ou seja: para cada crédito ECTS há de se considerar que apenas metade da carga horária total convertida é efetivamente de horas-aula presenciais.

Deste modo, para fins de análise de carga horária, a CEF-CAU/RS concluiu que, tratando-se de conversões de créditos no exterior em carga horária no Brasil, há necessidade de se elaborar instruções que definam a correta conversão de tais créditos, a fim de buscar alinhamentos com as IES e evitar equívocos ou divergências, tal como ocorrem no presente processo, com as análises feitas pelas CEF.

ANEXO II – HISTÓRICO ESCOLAR

LONDON metropolitan university

Name of Student	[redacted]
University Reference	
NQF Level	
Date of Birth	
HESA Reference	
Teaching Institution	London Metropolitan University
Awarding Institution	London Metropolitan University
Course of Study	Architecture
Professional or Statutory Body Accreditation	www.londonmet.ac.uk/about/quality-enhancement-unit/quality-manual/psrb/
Language(s) of Instruction	English

Record of Learning and Achievement

1994/5		Level	Mark	Grade	Result	Credit	ECTS Credit
AR101.0	History of Western Architecture	P	50	C	P	15	7.5
AR102.0	Technology	P	0	FI	F	0	0
AR103.0	Information Technology	P	44	D	P	15	7.5
AR104.0	Drawing and Workshop Studies	P	57	C	P	15	7.5
AR105.0	Architectural Design 1 (A)	P	54	C	P	15	7.5
AR106.0	Architectural Design 1 (B)	P	45	D	P	30	15
AR107.0	Design Development	P	40	D	P	15	7.5

1995/6		Level	Mark	Grade	Result	Credit	ECTS Credit
AR102.0	Technology	P	41	D	P	15	7.5
AR203.0	Building Study	A	43	D	P	15	7.5
AR204.0	Architectural Design 2 (A)	A	55	C	P	30	15
AR205.0	Architectural Design 2 (B)	A	52	C	P	30	15
AR206.0	Design Development	A	45	D	P	15	7.5
AR207.0	European Architecture (Modern History)	A	47	D	P	15	7.5

1996/7		Level	Mark	Grade	Result	Credit	ECTS Credit
AR202.0	Technology	A	34	F	F	0	0
AR202.0	Technology	A	47	D	P	15	7.5
AR304.0	Architectural Design 3 (a)	A	64	B	P	30	15
AR305.0	Architectural Design 3 (b)	A	66	B	P	30	15
AR306.0	Design Development	A	62	B	P	15	7.5
AR307.0	Environment and Building Law	A	0	FI	F	0	0
AR307.0	Environment and Building Law	A	0	F	F	0	0
AR308.0	Theoretical Investigations in The History of Architecture and Design	A	0	FI	F	0	0

1999/0		Level	Mark	Grade	Result	Credit	ECTS Credit
AI302.0	Architecture Professional Practice	A	37	F	F	0	0

Qualification Awarded		Diploma of Higher Education	
Classification		Pass	
Award Title		Architecture	
Classification Average			
Total Credits Gained		315	
Date of Award	5 Jul 2002	Date Transcript Issued	14 May 2018

To check the validity of this transcript email awards@londonmet.ac.uk and quote transcript number 94338478/1.

LONDON METROPOLITAN UNIVERSITY
Student Records & Assessment
London Metropolitan University
166-220 Holloway Road
London N7 8DB

ANEXO V
CONTEÚDO PROGRAMÁTICO

BA (HONS) ARCHITECTURE

NOTES ON COURSE:

Extenuating Circumstances

If you are ill or something happens which is beyond your control and it adversly affects your ability to work or submit assessments, you must supply written evidence to the Course Tutor and notify the module convenor that you have done so - in writing. You may submit confidential documentation which will only be opened at the Assessment Board if you are in danger of failing the module. Confidential information is not kept on your file. It is your responsibility to keep us properly informed. Evidence of extenuating circumstances may not be submitted after the assessment procedure has started. Please make sure all your documentation is complete and up to date irrespective of whether you think you are likely to fail.

In the event of failure the Assessment Board will take into consideration any evidence of extentenuating circumstances and will make a judgement as to whether they materially affected your performance and, if so, whether you should be given more time to complete the work or whether you may repeat the work 'as if for the first time', ie the module will not count as a 'take'. For the exact regulations please consult the relevant paragraphs in the Course Document.

As the Assessment Board now considers modules separately, rather than individual student profiles, you must notify each module convenor if you wish extenuating circumstances to be taken into consideration for that module.

Attendance

Attendance records will be kept in all subject areas for all timetabled teaching, including lectures, seminars, workshops, tutorials, visits and planned events. Attendance is mandatory and the minimum acceptable level is 70%. Your attendance record in each module will automatically be registered at the Assessment Board and will form part of your assessment. It will also contribute to your academic profile when references are requested by local authorities and grant giving organisations, diploma and post graduate courses, architectural offices and general employers. If you are absent through illness, or due to other circumstances, you must inform the module convenor and provide written evidence to the Course Tutor, as detailed above.

Feedback

SUBJECT STUDIES: You should get a record sheet back with each assessment which indicates the grade that will be submitted to the Assessment Board at the end of the year for verification. Most modules contain several components which are separately assessed and the marks are aggregated to give an overall grade for the module. The weighting of components is identified in the module descriptions. The record sheets may also contain comments and/or a skills audit, or comments may be written directly on the work.

DESIGN STUDIES: The Design Study modules are not finally marked until the end of the year, when they are marked by a Portfolio Panel drawn from tutors across the School. At the end of the first Semester there is an interim portfolio review by the studio tutors. The record sheet from this review, and any other record sheet on design work issued during the year, is advisory only and may be over-ruled at the final assessment when the completed portfolio is looked at. Nevertheless, these record sheets are a valuable source of feedback, together with extensive verbal tutorial advice and comments from reviewers. Tutors will make available written comments on progress during the year but it is the responsibility of the student to ensure they are received and understood. If you do not think you have had adaquate feedback you must ask the studio tutors for written comments at the relevant time. If you are still not satisfied you must seek advice from the Course Tutor within a reasonable period in order that any problems might be addressed.

BA (Hons) ARCHITECTURE:

EXTRACTS FROM SCHEME REGULATIONS 1993/94

8.1.5. intermitting

In order to ensure that appropriate skills are retained, any student wishing to intermit from the programme for a period of more than one year will be interviewed prior to being re-admitted.

8.2 Awards

Provision is made for the following awards:

Certificate of Higher Education
Diploma of Higher Education
Degree
Honours Degree

8.3 Mode of Study

The scheme is available for study by part-time or full-time modes, or by a sequence of these.

8.4 Units of Study

Academic study is organised into equal sized units or modules each carrying a credit rating of 15 points.

The academic year is divided into two semesters of 15 weeks.

The programme is offered at two levels of study:
Preliminary Level modules, at the standard of the first year of a full-time degree programme; and

Advanced Level modules, at the standard of the second and third year of a full-time degree programme. Advanced Level study is divided into Intermediate and Final Level modules.

The modules in each level of study are divided into two groups: Subject Studies and Design Studies. Each level comprises of three Subject Studies modules and five Design Studies modules.

8.5 Withdrawals and Re-registration

8.5.1. A student who is registered for a unit and submits notification of withdrawal in writing by either week 4 of the standard module or week 11 of the non-standard module, will be deemed not to have taken the module.

8.5.2. A student may normally register for a unit at any time up to the end of the second week, subject to programme planning constraints.

8.6 Assessment

8.6.1. Modules are allocated a mark out of 100. The pass mark for each unit shall be 40%. Module assessments may incorporate a number of components including essays, seminar

presentation, open book scheme tests, projects or components of projects, reports or case studies. Design Studies modules are assessed in Portfolio through drawings, models, photographs, film or video, CAD, reports, written text and verbal presentation. All three dimensional work must be recorded in graphic form.

8.6.2. The following grading bands will be used in respect of work returned to students as part of the teaching programme:

70+	A
60-69	B
50-59	C
40-49	D
Below 40	F (Fail)

8.6.3. A student must complete, including attend, the prescribed programme of work for each module to the satisfaction of the Assessment Board. Failure to comply with the module requirements will normally result in failing to complete the module, which will not be credited and result in failure to pass the unit.

8.6.4. A student who completes a module but does not achieve a pass in that module will fail the module.

8.7 Requirements for an Award

8.7.1. A student shall normally be entitled to receive only one award within these regulation, together with the RIBA Part 1 Exemption where eligible.

8.7.2. The normal expectation is that a student will complete his/her award within the following periods:

Certificate	5 years
Diploma	7 years
Degree	8 years
Honours Degree	9 years

8.7.3. Preliminary Level

In order to successfully complete the Preliminary Level, a student shall normally have:

a. completed work equivalent to at least 120 credit points at Preliminary Level (8 different modules);

b. passed work equivalent to at least 105 credit points at Preliminary Level (7 different modules);

c. satisfied the programme requirements (designated subjects) if the RIBA Part 1 award is being sought.

8.7.4. Certificate of Higher Education:

At the discretion of the Assessment Board, a Certificate of Higher Education may be awarded to a student who has:

a. completed work to at least 90 credit points, (6 different modules) at Preliminary Level:

b. passed work equivalent to at least 75 credit points, (5 different modules);

c. obtained at least 75 credits (5 modules) within these regulations;

d. satisfied any relevant subject or scheme requirements.

A student must normally complete, or be exempted from, Preliminary Level modules before starting on Intermediate or Final Level modules.

8.7.5. Diploma of Higher Education

At the discretion of the Assessment Board, a Diploma of Higher Education may be awarded to a student who has successfully completed the Preliminary Level and has:

a. completed work to at least 120 credit points, (8 different modules) at Advanced Level;

b. passed work equivalent to at least 105 credit points (7 different modules) at Advanced Level;

c. obtained at least 120 credit points within these regulations;

d. satisfied any relevant subject or scheme requirements;

8.7.6. Unclassified Degree

At the discretion of the Assessment Board, a degree may be awarded to a student who has satisfactorily completed the Preliminary Level and has:

a. passed work equivalent to at least 180 credit points (12 different modules) at Advanced Level;

b. obtained at least 120 credit points at Advanced Level by study within these regulations (8 different modules);

c. completed work equivalent to at least 60 credit points at Final Level (4 different modules).

A candidate who passes all Advanced Level units at the first attempt and attains an average mark of more than 60% over 12 Advanced Level modules shall be eligible for the award of a Degree with Distinction. Such an award shall be at the discretion of the Assessment Board.

8.7.7. Degree with Honours

At the discretion of the Assessments Board, a degree with honours may be awarded to a student who has successfully completed the Preliminary Level and who has:

a. completed work equivalent to at least 240 credit points (16 different modules) at Advanced Level;

b.. passed work equivalent to at least 210 credit points at Advanced Level (14 different modules);

c. completed work equivalent to at least 120 credit points at Advanced Level (8 modules) by study within these regulations;
d. completed a dissertation in Architectural History and/or equivalent project (15 credit points);

e. taken no more than 20 modules at Advanced Level, including transferred credit.

8.7.8. Classification of Honours

The classification of Honours will be determined by the Assessment Board, taking into account all Advanced Level work for which a mark is available, up to a maximum of 16 modules or equivalent. Classification will be weighted upon the aggregates of the Intermediate and Final Level marks, in the proportion 20% Intermediate and 80% Final Level DESIGN STUDIES modules and 50% Intermediate and 50% Final Level SUBJECT STUDIES modules.

The following guidelines will be used:

70% +	First
60-69	Upper Second
50-59	Lower Second
40-49	Third

8.7.9. RIBA Part 1 Exemption

RIBA Part 1 Exemption will be awarded on the successful completion of either an unclassified or honours degree, subject to passing all the scheme designated modules.

8.8 Procedure in the Event of Failure

8.8.1. A student who fails one or more modules may, at the discretion of the Assessment Board, be permitted to be reassessed in whole or in part in the failed module/s. The Board will determine a date by which a reassessment shall be completed.

8.8.2. A student offered reassessment in a particular module may, subject to programme approval, choose not to be reassessed but to retake the module or take an alternative module ab initio.

8.8.3. If reassessment is not permitted, or a student opts not to be reassessed, any decision as to retaking (a) failed module/s or taking an alternative module/s is subject to programme planning provisions.

8.8.4. Reassessment will count as a take under these Regulations. A student must therefore be credited with the mark achieved on reassessment.

8.8.5. A student who fails one or more modules will normally be permitted to continue on the scheme, so long as s/he is able to plan a viable programme and it appears possible for him/her to satisfy the requirements of an award. Exceptionally, and normally on the advice of the Course Tutor, the Assessment Board may require that the student discontinue the scheme where, in its collective academic judgement, the student's progress is such that s/he will not satisfy the requirements for the award for which he/she is studying or will not benefit from continuing with the scheme. In such a case, the student shall be entitled to receive the highest award for which s/he is already qualified.

8.9 Procedure in the Event of Illness or other Valid Cause

8.9.1. If a student fails, or fails to sit or submit all or part of the assessment of a module due to certified illness or other cause deemed sufficient by the Assessment Board on production of satisfactory documentary evidence, s/he may be permitted to sit/submit the failed assessment as if for the first time by a date determined by the board. Alternatively the Board may deem the module not to have been taken.

8.9.2. If the Board is satisfied that it has sufficient evidence to arrive at a fair estimation of the student's performance, it may ascribe a mark or deem the student to have passed the

assessment. Alternatively, if it deems it is in the student's best interests, it may prescribe whatever form of assessment it considers suitable to the circumstances of the case, including the use of viva voce examination.

8.9.3. If a candidate would have been eligible for an award but for the circumstances covered in 8.9.1, the Assessment Board may recommend that award, if it is satisfied that there is sufficient evidence of the student's achievements in the module/s so affected. If the student is being considered for an award with distinction, or for a classified honours degree, the Board, if it is satisfied that it has sufficient evidence to arrive at a fair estimation of a student's performance, may recommend the award with distinction, or a classified degree. If there is insufficient evidence in the case of a candidate for Honours degree to determine classification, but the Board is satisfied that a degree with Honours is warranted, the award of a low class of Honours may be recommended. Alternatively, the Board may recommend the award of an Aegrotat degree.

8.9.4. If an award is to be received under the provision of 8.9.3, the student is required to signify in writing that s/he accepts the award and waives the right to reassessment conferred in the first paragraph 8.9.1.

8.10 Assessment Board

8.10.1. There shall be an Architectural Assessment Board which shall meet at the end of each academic session and before the start of the new session to consider referred or deferred students. Separate Assessment Boards shall be held to consider Preliminary, Intermediate and Final Level results. The Assessment Board will:

a. receive agreed results, marks and student documentation from the assessment tutor;
b. make final decisions on the assessment of student performance and results in each component of the scheme, including recommendations to resubmit or retake components;
c. make final decisions on progression, appropriate awards and degree classification;
d. determine whether a student should be recommended or required to discontinue the scheme;
e. consider any extenuating circumstances which may have affected a student's performance and record the decision taken;
f. determine the action to be taken where a student has committed an assessment offence. Any allegations of assessment offences should be brought to the attention of the Board which is empowered to establish a sub-committee to investigate the offence and report to the Board.

8.10.2. Membership of the Assessment Board shall comprise of: the Head of Department or approved Faculty Board nominee, who shall not be the Scheme Tutor; approved external examiners; all internal examiners.

8.10.3. External Examiners shall conduct viva voce examinations of all students with portfolio who are eligible for an award leading to RIBA Part 1 Exemption.

8.11 Appeals

Any appeal against the interpretation or implementation of these regulations may be made to the Academic Registrar in accordance with published procedures.

8.12 Retention of Work

All work prepared as part of the programme remains the property of the Department, normally until one year after the conferment of the award. Within this period, retained work may be borrowed by the author for a limited time on the authority of the Course Tutor. Work may be called in to be retained at any time during the prescribed period.

MODULE CONVENORS

MODULES	SUBJECT	CONVENOR
AR 101	HISTORY	COLIN DAVIES
AR 102	TECHNOLOGY	FRANCIS HOLLISS
AR 103	IT/CAD	SHAMA RAHMAN
AR 104	DWG/WORKSHOP	ROSE NAG
AR 105	DESIGN1A	ADAM CARUSO & DAVID CLEWS
AR 106	DESIGN1B	ADAM CARUSO & DAVID CLEWS
AR 107	DESIGN DEV	ADAM CARUSO & DAVID CLEWS
AR 207	HISTORY	JOE KERR
AR 202	TECHNOLOGY	MIKE WILSON
AR 203	BUILDING STUDY	IAN MONTGOMERIE
AR 204	DESIGN2A	RIC NIJS & MARK HEWITT
AR 205	DESIGN2B	RIC NIJS & MARK HEWITT
AR 206	DESIGN DEV	RIC NIJS & MARK HEWITT
AR 308	HISTORY	ROBERT HARBISON
AR 307	ENVIRONMENT & BULDING LAW	GORDON MACLAREN
AR 303	(SUPERCEDED)	
AR 304	DESIGN3A	DAVID CLEWS & CJ LIM
AR 305	DESIGN3B	DAVID CLEWS & CJ LIM
AR 306	DESIGN DEV	DAVID CLEWS & CJ LIM

NB: If you have any queries about the structure, content or timetable of the modules, please check with the module convenor. If there are still problems you should seek advice from the course tutor.

School of Architecture and Interior Design
ARCHITECTURE DEGREE SCHEME

Module	AR101ab
Subject	SUBJECT STUDIES
Level	Preliminary/Level One
Duration	21 weeks
Workload	120 hours
Credit Points	15
Designation	REQUIRED FOR RIBA PART 1 EXEMPTION
Prerequisites	

HISTORY OF WESTERN ARCHITECTURE

Learning Objectives

Survey course of Western architecture and introduction to thinking about architecture

The programme of study maps out the shape of architectural history in terms of both its chronology and areas of study and familiarises the student with some of the best known material. The programme also introduces different ways of thinking about architecture, and the methods by which it is studied and presented, in order to encourage clear thinking and coherent presentation of ideas about architecture and architectural history.

Syllabus

The programme of study consists of two separate course of lectures and seminars. The lectures outline a chronological survey of the main monuments of Western architecture from Ancient Egypt to the present day and explore the relationship between meaning and building form in the context of social, political and economic forces. The seminars involve the presentation and discussion of basic themes in architectural theory such as art, science, construction, human use, language and urbanism.

The programme also includes classes on study skills including note taking, academic method and library research techniques.

LECTURE COURSE 1993-94

AIMS OF THE COURSE
This short "survey" course is wide-ranging, rather than in depth. From it you should gain:

a) A firm grasp of the basic chronological and geographical framework of conventional architectural history.
b) A familiarity with the major monuments of the Western architectural tradition.
c) The beginnings of an appreciation of the relationship

between meaning and building form within the wider context of social, political and economic forces.
Lecturer: Colin Davies

LECTURE COURSE OUTLINE AND TIMETABLE

1. Introduction to the course.
   Introduction to the discipline of architectural history in its various forms. The concept of a "survey course" and the reasons for teaching it. Chronological and geographical outline.

   Ancient Civilisations 3000 BC - 500 AD
2. Egypt
3. Greece
4. Rome
   Uses examples from the ancient period to explore the relationship between a society's belief systems and the architecture of its monuments.

   Christianity and Islam 500 - 1400
5. Byzantine and Islamic
6. Romanesque
7. High Gothic
   Examines the ways in which different societies used church building to express particular religious and secular values.

   Renaissance and Enlightenment 1400 - 1800
8. 15th and 16th century Italy
9. "Baroque" in Italy, France and England
10. The age of Enlightenment
    Explores how shifting patterns of social, political and economic power in Europe from the 15th to the 18th century had an impact on the development of different architectural languages, in particular the classical language.

    The Modern World 1800 - 2000
11. 19th century England
12. "Modernism" in Europe and America
13. Post World War II developments
    Explores the concepts of modernisation, modernity modernism and post modernism.

    Non Western architectural traditions

SEMINAR COURSE

1. Skilling, reading, thinking, summarising.
2. Architecture and Art.
3. Architecture and Science.
4. Architecture and Construction.
5. Architecture and Human use.
6. Architecture as Language.
7. Architecture and Cities.

Teaching and Learning Methods
The programme is taught through slide lectures, seminars, study visits and tutorials.

Learning Outcomes
a) A familiarity with the basic geographical and chronological framework of the Western architectural tradition.
b) Familiarity with the major monuments of Western architecture and some knowledge of the relationships between these buildings and the societies that produced them.
c) An ability to think clearly about architecture and express ideas in a structured and coherent way, with reference to historical examples.
d) A clear sense of the richness of the architectural past.
e) Knowledge of a range of possible architectural theories and histories, and a critical attitude to theoretical and historical texts.
f) Skill and confidence in ordered and coherent expression, both written and spoken.

Assessment
a) Students are required to keep a notebook illustrated by sketches and photographs taken from slides during lectures, from books and from actual buildings in London.
b) A 1500 to 2000 word essay on one of several set topics from the lectures.
c) Make a seminar presentation in verbal form and as a written record of around 1000 words.

Weighting: Essay and Notebook 75/100 Seminar 25/100
Hand in: Essay and Notebook - week 16 Seminar - week 23

Indicative Bibliography
The basic texts are:
The Penguin Atlas of World History Penguin Books, 1974
Kostoff, Spiro A History of Architecture - Settings and Rituals Oxford University Press, 1985
Risebero, Bill The Story of Western Architecture The Herbert Press, 1979
Fletcher, Sir Banister A History of Architecture Edited by John Musgrove, 1987 (Mainly for the illustrations)

Histories of Specific periods:

Ancient Civilisations
Badawy, Alexander A History of Egyptian Architecture
Kitto, HDF The Greeks
Woodford, S The Parthenon
Ward Perkins, John B Roman Architecture
Christianity and Islam
Krautheimer, R Early Christian and Byzantine Architecture
Kubach, Hans Erich Romanesque Architecture
Hoag, John D Islamic Architecture

Kidson, P The Mediaeval World
von Simson, Otto The Gothic Cathedral

Renaissance and Enlightenment
Summerson, John The Classical Language of Architecture
Wittkower, R Architectural Principles in the Age of Humanism
Goldthwaite, R The Building of Renaissance Florence
Murray, Peter The Architecture of the Italian Renaissance
Tavernor, Robert Palladio and Palladianism
Blunt, Anthony Baroque and Rococo: Architecture and Decoration
Rykwert, Joseph The First Moderns: The Architects of the Eighteenth Century
Cruickshank, Dan and Thornton, Robert Life in the Georgian City

The Modern World
Crook, JM The Greek Revival
Hobsbawn, Eric Industry and Empire
Dixon, Roger and Muthesius, Seifan Victorian Architecture
Pevsner, Nikolaus Pioneers of Modern Design
Banham, P Reyner Theory and Design in the First Machine Age
Frampton, Kenneth Modern Architecture: A Critical History

School of Architecture and Interior Design
ARCHITECTURE DEGREE SCHEME

Module	AR102ab
Subject	SUBJECT STUDIES
Level	PRELIMINARY/LEVEL ONE
Duration	WEEKS 1-23
Workload	120 HOURS
Credit Points	15
Designation	REQUIRED FOR RIBA PART 1 EXEMPTION

TECHNOLOGY

Learning Objectives

By the end of the module the student should have developed an understanding and knowledge of the following: a) the principles, terminology and role of materials and construction in the design of buildings, b) the principles, terminology and role of environmental science, particularly lighting and thermal control, in the design of buildings, and c) the principles, terminology and role of structures in the design of buildings.

Syllabus

The programme is developed in three parts based on lecture courses which conform to the different subject areas. The first part is the subject of materials and construction which is presented under the heading 'Building Elements'. This course covers an introduction to the basic materials of building including timber, stone, concrete, glass, metal etc; the fundamental monolithic, frame and composite constructional systems; the elements of building in terms of foundations, floors, walls, columns, openings etc. The course is presented through the description of principles illustrated by examples from different cultural, traditional and contemporary sources.

The second part of the programme is environmental science which is presented under the heading 'Building Comfort', thus focusing on the main aim of environmental control. The course introduces principles in the evaluation, prediction and control of the thermal and lit environment, focusing on the mediums of light and energy. The course covers concepts of environmental and climatic control; the physics of seeing and the terminology of lighting calculation; standards of lighting; qualities of daylight and artificial light; the control of light and colour within buildings; principles of thermal comfort and thermal measurement.

The third part of the programme is structural design. The course introduces the student to structural terminology and the use of mathematics as a structural language and the principles governing the design and construction of structural systems and elements.

The course covers the fundamental structural types; elements of statics; a qualitative understanding of the displacements and deformations of structures loaded by external forces.

Teaching and Learning Methods
The programme is taught through lectures, directed study and submission tutorials.

LECTURE SYNOPSIS - BUILDING ELEMENTS
Lecturer: Frances Holliss

LECTURE 1
Introduction to lecture series. Establishment of principles of assessment. What is constructional design? Establishment of principles of construction.... structural stability, keeping the water out and off, keeping heat in/out, making openings, lighting and ventilation, durability, fire resistance, appropriate use of materials and technology. Conceptual difference between frame and monolithic construction.

LECTURE 2
Foundations: What is a foundation? Importance of ground conditions. Strip, pad, raft, pile foundations.

LECTURE 3
Walls 1: Principles of wall design; appearance, structural strength and stability, weather exclusion, thermal insulation, fire resistance, durability, security.

LECTURE 4
Walls 2: Basic types and typical sections; 'raincoats', cavity construction, 'overcoats'.

LECTURE 5
Floors: Principles of floor design; appearance, structural strength and stability, sound insulation, thermal insulation, fire resistance, damp resistance. Basic types and typical sections; solid ground floor, suspended ground floor, concrete intermediate floor, timber intermediate floor.

LECTURE 6
Roofs 1: Principles of roof design: appearance, structural strength and stability, weather exclusion, thermal insulation, drainage, maintenance, security, fire resistance, natural light and ventilation, access and safety.

LECTURE 7
Roofs 2: Basic types and typical sections; flat roofs: warm roofs, cold roofs, upsidedown roofs. Pitched roofs: cold roofs, warm roofs.

LECTURE 8
Timber: Timber framed parents' workroom, Hampstead. Pool house,

Hampstead Garden Suburb. Anatomy of frame. Stability of frame. Connections, jointing. Process of building a frame. Cladding, making openings. Fire.

LECTURE 9
Steel: Steel framed library, Newnham College, Cambridge. Steel framed booking office, Redhill BR station. Advantages and disadvantages of building in steel. Stability, connections. Cladding. Fire resistance. Corrosion.

LECTURE 10
Concrete: Concrete framed private house, Kentish Town. Concrete framed health centre, Finsbury. Advantages and disadvantages of building in concrete. Formwork and finishes. Process of building the frame. Weathering, carbonation, sulphate attack.

LECTURE 11
Brick: Gardeners' offices, Haringey. Private house/office, Kentish Town. Solid brick and cavity wall construction. Stability, slenderness ratios. Making openings; arches, lintels, corbelling. Bonding, pointing. Diaphragm walls.

LECTURE 12
Concrete block, render: Nursery building, Hackney. Nursery building, Wales. Concrete blockwork construction. Render. Making openings. Thermal insulation.

LECTURE 13
Summing up of main principles and topics covered in lecture series.

LECTURE 14
Feedback session for entire technology module with FH, AC, MW.

BIBLIOGRAPHY:
Foster, Jack Stroud. Mitchell's Building Construction: Structure and Fabric Part 1. BT Batsford Ltd.

Gauld, Bryan J B. Structures for Architects. 2nd ed. England. Longman Scientific and Technical.

Gordon, J E. Materials or why we don't fall down. London. Pelican.

Jones, E and Woodward, C. A guide to the Architecture of London. London. Weidenfeld and Nicolson Ltd.

Orton, Andrew. The way we build now, form, scale and technique. England. Van Nostrand Reinhold (UK) Co. Ltd.

Rich, Peter. Principles of Element Design. 2nd ed. London and New York, George Godwin, 1982.

Mason, John. "Solid Masonry Walls." Architects' Journal, Vol 195, 3 June 1992, pp 47-54.

STUDY PROGRAMME, MATERIALS
Lecturer Adam Caruso
7 lectures, weeks 3-9 (Tuesday 1.30-2.30), in rm 227.

"Whenever technology reaches its real fulfilment, it trancends into architecture. It is true that architecture depends on fact, but its real field of activity is in the realm of significance."
Mies van der Rohe (1950)

The aim of this series of lectures is to expose the student to a range of materials and their fundamental properties. By studying how these materials are used in works of architecture, sculpture, furniture, etc. it will become apparent that far from simply being a matter of available technology, the choice of a material is the direct consequence of a general ideological position, an attitude towards technology and a sensitivity to place.

After establishing the necessity for a theory of construction, and a simple methodology for understanding and classifying such a theory in different examples, the lectures will concentrate on particular works and show how a sensitivity or attitude towards materials contributed to the making of each work.

LECTURE SYNOPSIS - MATERIALS
Lecturer: Adam Caruso

LECTURE 1
Introduction
Building physics is different from a theory of construction. While the former is quantifiable, the latter is part of 'design' and therefore subjective and relative. The designer must decide if he/she wants to work in the context of; the world as it is, or the world as it might be.

One cannot build without a theory of construction. Even if the designer is not actively engaged in the making of a building (i.e. a typical office building), the theory is still there. Good design is almost always consciously involved in the 'making'.

All theories of construction can fundamentally be classified as monolithic or layered. The same designer may often work in both categories depending on issues of appropriateness, changes in technology.

LECTURE 2
A discussion of the nature of brick, tracing the cultural, sym-

bolic and historical significance of the material with reference to Rome and the work of Berlage.

A detailed study on the use of brick in the architecture of Louis Kahn, specifically the Exeter Library. This will be contrasted with the use of brick in St Peter's lippan by Sigurd Lewerentz.

LECTURE 3
A study of steel with particular reference to the concepts of materiality and process in minimalist art. A detailed investigation into the work of Richard Serra, relating his work in steel to his films and early works in lead.

LECTURE 4
The material properties of wood and the traditional manner in which it has been worked, will be compared to the new line of furniture designed by Frank Gehry which explores the expanded formal and technical potential of wood when it is industrially processed.

LECTURE 5
A look at the history of concrete and its changing uses. Its ability to be sprayed and cast and subsequent plastic potential will be investigated in the work of such designers as Maillart, Perrett, Le Corbusier and Nervi.

LECTURE 6
The historically changing relationship between these two materials will be traced in a series of London buildings.

LECTURE 7
Conclusion

STUDY PROGRAMME, ENVIRONMENTAL SCIENCE
lecturer Mike Wilson
7 lectures, weeks 1-7 (Tuesday 9.30-10.30 in rm 227)

LECTURE 1
Why study environmental design? Elementary psychophysics. How we see. Simple lighting units: lumen, lux, candela etc. Standards in lighting. Simple calculations.

LECTURE 2
Electromagnetic spectrum. Colour. Colour Temperature, CIE systems, Munsell charts.

LECTURE 3
Daylight and sunlight. Sky conditions. Daylight Factor and sky luminance. Artificial skies and the Heliodon.

LECTURE 4
Climate. Thermal Comfort and its measurements. Thermal Resist-

ance, Conductivity and U-Values.

LECTURE 5
Calculation of U-Values and Thermal losses. Degree Days. Cold Bridges. Ventilation. A.c.h. Condensation.

LECTURE 6
Acoustics. Frequency, wavelength and velocity. Elementary behaviour of waves. Logarithmic scales. Sound Pressure. Intensity and Power.

LECTURE 7
Addition of Decibels. Simple formulae relating to distance. Loudness, Noise Rating and Criteria. Reverberation and insulation.

BIBLIOGRAPHY

European Passive Solar Handbook. Batsford 1992.

Fanger, PD. Danish Technical Press 1970.

Hopkinson; and Collins. The Ergonomics of Lighting. MacDonald 1970.

Humphries, M; and Nicol, F. Theoretical and practical aspects of Thermal Comfort. BRE CP.14/71.

Julian, W G. Lighting: Basic Concepts 4th edition. Department of Architecture & Science, University of Sydney. Aus. 1983.

McMullen, R. Environmental Science.

Nelson. Transportation Noise Handbook. Butterworth 1987.

Parkin; Humphries; and Cowell. Acoustics, Noise and Buildings. Faber 4th Edition, 1979.

BSA 8233: 1987 Code of Practice for Noise in Buildings.

BRE Digest 1908, U-values

BRE Digests 309, 310, Daylighting Parts 1&2.

CIBSE Interior Lighting Code of Practice 1984.

CIBSE Guide A (esp. section 1).

STUDY PROGRAMME, STRUCTURES
lecturer: to be determined.
7 lectures, weeks 8-11, 13-15 (Tuesday 9.30-10.30) rm 227.

"A building structure can be said to have at least two aims of equal importance: the technical and the aesthetic. The first aim, the technical function, is to stand upright, secure from collapse or excessive deformation. The structure accomplishes this by withstanding loads and transferring them, through The building components, to the ground.

The second aim, the aesthetic function, is to act as a potent and meaningful visual vehicle that, through the process of refinement can become a convincing and recognisable medium of architectural expression. Both the technical and the aesthetic function of a building structure must be satisfied simultaneously if The structure is to be more than just an assemblage of answers to various technical problems". Bjorn Sandaker, Arne Eggen 'The Structural Basis of Architecture'.

LECTURE SYNOPSIS: STRUCTURES

LECTURE 1: INTRODUCTION
Structural dualism: The joint aims, technical and aesthetic.

Structural loads: dead loads, live loads. The concepts of rigidity and flexibility in structure.

Materials and forces: forms of structural deformation
:Tension, compression, bending, tension, shear
:Materials and their structural properties, steel, concrete, timber, masonry, textiles.

LECTURE 2 : FORCES
"a state of equilibrium is only attractive when we walk on tightrope; sitting on the ground it is not as marvellous" Andre Gide.

- Statics and Architecture: The principle that buildings "shall stand still".
- Newton;s Laws: The meaning of force.
- Resultant forces, Vectors.
- Resolution of forces: Equilibrium.
- Static equilibrium of parallel forces: The lever principle.
- Moments of force.
- Statically determinate and indeterminate structures.
- Distribution of forces as a means of architectural expression.

LECTURE 3: TRUSSES

- Examples from history.

- Force, stress and elasticity

- A system of members: examples of trusses

- Space frames.

LECTURE 4: THE BEAM

- The prehistoric beam.

- The trouble with beams: The inefficient utilisation of The material.

Moment and shear diagrams.

- Forces and form.

- Continuous beams, grids of beams and slabs.

LECTURE 5: THE COLUMN
"Oh, what a wonderful day when the wall parted and the column was born" Louis Kahn.

- The way the column works, structurally and as a definer of space.

- 'Short' columns and 'long' columns

- slender columns and buckling

- The form of the column

LECTURE 6: THE FRAME: COOPERATION BETWEEN THE COLUMN AND THE BEAM
"The frame forms a complete figure. Its existence relies upon cooperation between The column and The beam. Therein lies its structural expression" Thomas This-Evenson, Archetypes in Architecture.

- The function of a frame as structural form.

- Finished form: Alvar Aalto

- Forces in frames.

LECTURE 7: THE ARCH

- The Arch as historic indicator.

- The character of the arch and vault.

- Why is the arch the way it is?
- Structural function as a criteria of form.
- Foundations of the arch.
- The vault and light

This lecture series is based on The following book: "The Structural Basis of Architecture" by Bjorn Norman Sandaker and Arn Petter Eggen. Publ. Phaidon 1993. £19.95.

It is strongly recommended that all students buy and study this book as a great deal of ground has to be covered in few lectures. A sound understanding of structures from the beginning will be an enormous help to students in their design work.

Learning Outcomes

a. an understanding and knowledge of the principles, terminology and role of materials and construction in the design of buildings.
b. an understanding and knowledge of the principles, terminology and role of environmental science, particularly lighting and thermal control, in the design of buildings;
c. an understanding and knowledge of the principles, terminology and role of structures in the design of buildings.

Assessment

a. Materials and construction: a 1500 word essay illustrated with drawings, sketches and photos, counting for 60% of the total module assessment. This essay will be based on a critical appraisal of the structure, construction and materials of a building of the student's choice.

b. Environmental science: a report, counting for 20% of the total module assessment. This report will be based on the study, measurement and evaluation of an internal environment.

c. Structures: a report including sketches, text and model counting for 20% of the total module assessment.

Hand in Dates

a) The materials and construction essay must be handed in at the end of week 16 (by 4 pm Friday, 28.1.94).
b) The environmental science report must be handed in at the end of week 23 (by 4pm, Friday, 18.3.94).
c) The structures report must be handed in at the end of week 16 (by 4 pm, Friday, 28.1.94).

STUDY PROGRAMME - CONSTRUCTION
lecturer Frances Holliss

14 lectures, weeks 1-11, 13-15 (Tuesday 10.30-11.30 in rm 227).

This lecture series will be organised in two sections and will introduce the basic principles of building construction through the study of a variety of small contemporary pieces of architecture, having first looked at the principles involved in the design of the elements (walls, floors, roofs, etc.).

The concepts of constructional design and appropriate use of structure and materials will be introduced, as will the conceptual difference between frame and monolithic construction, through the study of both types of structure built in different materials. Students will develop a familiarity with working drawings and an understanding of how these relate to the built form. A body of knowledge will be conveyed with respect to the construction of buildings in timber, steel, concrete, brick, concrete blockwork and stone.

One of the aims of this series of lectures is to help students to develop confidence in their ability to understand how different architects put buildings together in very different ways because of their differing design intentions/theories... conscious or unconscious, and thus to enable the student to start to move away from text book construction solutions and towards an inventive and imaginative approach to their own detailed design work, relating to their own design ideas. It also aims to encourage the detailed study of precedent as a tool for the development of each student's technical vocabulary.

School of Architecture and Interior Design
ARCHITECTURE DEGREE SCHEME

Module	AR103ab
Subject	SUBJECT STUDIES
Level	PRELIMINARY/LEVEL ONE
Duration	14 WEEKS
Workload	120 HOURS
Credit Points	15
Designation	REQUIRED FOR RIBA PART 1 EXEMPTION
Prerequisites	

INFORMATION TECHNOLOGY

Learning Objectives

- to introduce the student to the role and place of computers in architecture.
- to develop through practical exploration an understanding of the impact of IT on the architectural design process.
- to encourage a critical approach to available hard and software and their potential in relation to traditional media.

Syllabus

The programme of study is in two parts, one design based and one technology based. The design based IT programme is grounded in project work; introduces the student to the concepts and functions of CAD modelling; encourages a practical exploration of computer aided design; develops a critical approach to the available hard and software and their potential in relation to traditional media. The specific design based areas of study include:

a. representation of form and space and documentation and analysis of existing settings;
b. processing and transformation and experimentation with formal and spatial alternatives;
c. application of strategies for assembling, encoding and revealing order in the exploration of architectural design.

The technology based IT programme is based on two sets of lectures, classes and workshops in structures and environmental design and develops practical skills in using software programmes to investigate, record and evaluate technical information. The specific technological areas of study include:

a. the investigation, recording and evaluation of the thermal and lit environment;
b. the investigation, recording and evaluation of structural designs and models;

Teaching and Learning Methods
The programme of study is taught through lectures, classes, workshops and tutorials with an emphasis on 'hands on' self directed practical work by the student.

The Design IT component will be taught through seven half day teaching workshops. The remaining time for this component will be for self directed study/project work. Each of the Technology components will be taught through two half day introductions followed by self directed project work supported by tutorials.

Learning Outcomes
- ability to use CAD and technically based software and to apply computer based techniques to design.
- awareness of the impact of Information Technology as a tool for the dissemination of architectural thought.

Assessment
The programme will be assessed through seminar presentations which reveal a general understanding of the concepts, theories and issues involved, and through projects and set assignments which are evaluated on technical competence, knowledge and understanding; skill, quality and ambition of work.

Weighting: Design based CAD 60/100
Environmental Design 20/100
Structural Design 20/100

The Design IT component will be assessed on a project to be submitted in hardcopy format that will test the student's ability to create and compose form and space through use of conceptual modelling software. The assessment of the Environmental Science section of the Technology component will compare simulation techniques predicting daylight factors using computer simulation and physical scale models; the Structural section assessment will test computing skills in structural analysis and design.

Hand in - week 16

Indicative Bibliography
A.E. Hill and R.D Pilkington A Second Complete Autocad Databook, Prentice Hall, Hertfordshire, 1992

'Autodesk 3D Studio Tutorials' Autodesk Ltd Publication, 1992

Daylight 'GTS' and 'GSA' computer manuals

Port, Stanley Computer Aided Design for Construction, Granada Publishing, London 1984

Reynolds, R.A. Computer Methods for Architects, Butterworth, London 1980

Kennedy, E Lee CAD Drawing Design and Data Management, The Architectural Press Ltd, London 1986

Palfreman, Jon and Swade, Doron The Dream Machine BBC Books, London 1991

Howes, Jaki Computers Count RIBA Publications, London 1989

Head G, Pietra C, Segal K, The Autocad 3D Book Ventana Press, North Carolina 1989

McCullough, Mitchell and Purcell, The Electronic Design Studio, MIT Press, Cambridge Mass, 1990.

Rahman, S - CAD Tutorial Packs - Autocad and 3D studio, Univ of North London, 1993.

STAFF

Shama Rahman, Mike Wilson, Gwyn Jones.

School of Architecture and Interior Design
ARCHITECTURE DEGREE SCHEME

Module	AR104ab
SUBJECT	DESIGN STUDIES
Level	PRELIMINARY/LEVEL ONE
Duration	26 WEEKS
Workload	120 HOURS
Credit Points	15
Designation	REQUIRED FOR RIBA PART 1 EXEMPTION
Prerequisites	EVIDENCE OF 3D DESIGN ABILITY

DRAWING AND WORKSHOP STUDIES

Learning Objectives

Drawing Studies

a. to develop drawing and representational skills as a thinking tool in the communication of design ideas;
b. to develop skills in the use of drawing as a tool to observe and analyse three dimensional space and form with particular reference to built form and the environment;
c. to develop skills in the use of drawing and a range of medias and techniques as tools of interpretation;

Workshop Studies

a. to develop skills in the process of making including planning, specification, crafting and finishing;
b. to develop the ability to use the workshop, hand tools, power tools and machinery, safely and appropriately;
c. to develop experience and competency in a range of different making operations;
d. to develop skills in accurate marking, cutting and measuring;
e. to develop familiarity with workshop practice

Syllabus

Drawing Studies

The following areas of study form the basis of the programme:

a. mark and line making techniques as figurative elements;
b. drawings as methods of observation, analysis and expression;
c. representation of the spatial dimension including perspective, scale, proportion, spatial progression, etc;
d. studies of form, light and transparency;
e. studies of materials and texture;

f. studies of place and context;
g. studies of colour;
h. studies in two and three dimensional orthographic projection

Workshop Studies

Students are introduced to a wide range of materials and making techniques to enable them to evaluate for themselves their different properties and limitations. The programme includes:

a. induction in the University's Health & Safety precedures for the SAID workshop.
b. planning the making process through different drawing techniques, component parts, cutting lists, specification, time management;
c. learning and evaluating practical skills;
d. working with materials using a range of tools and the evaluation of material properties;
e. workshop skills including measuring and marking, workshop terminology and practice, setting up for repeat operations;
f. introduction to workshop techniques of jointing and construction including frames and carcassing, welding, braising and soldering, cutting and bending;
g. introduction to finishing including painting, varnishing, polishing and waxing, applications and methods

Teaching and Learning Methods

Drawing Studies

The drawing studies programme is introduced through a series of lectures which illustrate the range of issues and techniques and situate them within a cultural and theoretical framework. The courses are primarily learnt through tutored drawing classes and workshops with set assignments. In addition seminars and class reviews are held.

Workshop Studies

The workshop studies programme begins with compulsory induction in the University's Health & Safety procedures for the SAID workshop. Other studies are taught through seminar introductions and supervised workshops with individual help for students.

DRAWING STUDIES SLIDE/TALK/LECTURE SERIES

This component of the Drawing Studies PROGRAMME supplements class study with the presentation of background information appropriate to the specific assignments in representation. The series presents discursive and thematic approaches to themes, providing points of reference for class study and which place them in a cultural and theoretical framework. Content is drawn from appropriate precedent of pictorial method and theories of

representation, prevalent in the Western Tradition of visual imagery.

The following themes form the basis for these talks which are presented within studio:

I MARKING FORM
The role of mark and line technique in representation.

II ANALYTICAL DRAWING
Approaches to the use of drawing and other visual methods in the analysis of the 3 dimensional.

III 20th CENTURY CONCEPTS OF PICTORIAL SPACE
Examples of key pictorial methods of spatial representation in this century.

IV BACKGROUND TO COLOUR THEORY & METHOD IN THE EXPRESSION OF FORM AND SPACE

V IDEA AND IMAGE
Concept and representation in art and architectural representation.

VI SPIRIT OF PLACE
Images conveying qualities of place - urban and landscape, interior and exterior.

Learning Outcomes

Drawing Studies

a. ability in the application of freehand drawing techniques in the observation and analysis of the three dimensional, ie form, light, space and materials;
b. attainment of skill in the handling of a variety of different media eg pencil, pastel, chalk, water colour, collage, frottage and photomontage;
c. fluency in the use of drawing and other techniques in the investigation and communication of design thinking.

Workshop

a. to be self reliant and work with safety in the workshop
b. ability to plan the making of an object
c. control of the making process
d. ability to evaluate the properties of materials

ASSESSMENT

Drawing and Workshop study programmes are assessed in Portfolio. All work must be appropriately ordered, edited and presented to demonstrate the learning process and the skills acquired.

DRAWING STUDIES ASSESSMENT REQUIREMENTS

1. Demonstration of basic drawing skills in closely observed study of three-dimensional form.
2. Ability to apply drawing methods and other representational techniques towards specific analytical studies of 3 dimensional form. (e.g. qualities of surface material and structure).
3. Ability to demonstrate a thoughtful investigation of spatiality showing understanding of scale and proportion, spatial progression, planar values, light shadow and transparency.
4. Clarity in representation of ideas.
5. Thoughtful relating of D.S. to design projects.
6. Imaginative qualities of visual expression and interpretation.
7. Clear and coherent orthogonal drawing showing understanding of appropriate use of scale and ability to move between scales, hierarchy of line and application of conventions and use of applied rendering techniques.
8. Carefully worked through set workshop projects, eg. Fragment and Essence, Light and Space, Colour and Place.
9. Consistency of sketchbook enquiry.
10. Overall quality of presentation of Drawing Studies within portfolio.

WORKSHOP ASSESSMENT REQUIREMENTS

1. Attendance at induction to University's Health and Safety procedures for the SAID workshop.
2. Continued adherance to the University's Health and Safety procedures for the SAID workshop.
3. Ability to plan and control the making process.
4. Ability to work safely using a range of tools and techniques.
5. Thoughtful and imaginative evaluation and use of materials.
6. Ability to join materials and construct objects using workshop techniques.
7. Careful consideration given to a degree of finish.

Drawing Studies are assessed within portfolio.
Interim Portfolio Review Hand-in WK 16 Monday January 25th
Portfolio Review Hand-in WK 28 Monday May 17th

Weighting: Drawing Studies 60/100
Workshop 40/100

STAFF

Drawing Studies - Rose Nag
Workshop Studies - Chi Roberts

This indicative reading list provides background reading for the Drawing and Workshop Studies Module, and students will be directed to the appropriate areas of study, where applicable to studio assignments.

Indicative Bibliography

Jackson, A. Collins Complete Woodworkers Manual, Collins, 1989
Pye, D. The Nature & Art of Workmanship C.V.P. 1968
Hollander, H. Plastics for Artists and Craftsmen, Pitman, 1972
Newman, T. Plastics as an Art Form, Pitman
Braun-Feldweg, W.C. (Trans Bradley) Metal-Design & Technique Batsford, 1975
Redinger, R O. Silver - An Instructional Guide to The Silversmith's Art Spectrum, 1981
C.O.S.I.R.A. Wrought Iron - A Manual of Instruction for Craftsmen, COSIRA, 1953
Haedeke, H. (Trans Marks) The Social History of the Decorative Arts - Metalwork Wiedenfeld & Nicholson, 1970
Harbin, R. Secrets of Origami, Octopus, 1971
Prince, A. Carving Wood and Stone - an Illustrated Manual, Spectrum, 1981
Lowe, J. Japanese Crafts, John Murray, 1983
Oka, H. How to Wrap Five Eggs, Harper & Row, 1967
Lingwood, R. Leather in Three Dimensions, Van Nostrand, 1980
Kenny, C. The Art of Papier Mache Pitman, 1969
Meilach, D. Creating with Plaster, Blandford, 1968
Readers Digest. Traditional Crafts in Britain, Readers Digest, 1982
Seymour, J, The Forgotten Arts - A Practical Guide to Traditional Skills, Dorling, Kindersley, 1984
Hohauser, S. Architectural and Interior Models, Van Nostrand Rheinhold, 1984
Janke, R, Architectural Models, Academy Editions, 1978

Drawing Studies

Itten, J Design and Form (trans Litton) Thames & Hudson, 1975
Arnheim, R Visual Thinking Faber & Faber, 1970
Klee, P The Thinking Eye (2 vols) Percy Lund Humphries, 1961
Nagy-M Vision in Motion Academy Edits, 1975
* Poling, C Kandinsky's Teaching at the Bauhaus Rizzoli, 1986
Ponty-M, The Phenomenology of Perception Routledge revsd, 1992
* Bachelard, G The Poetics of Space Beacon Press, 1969
Berger, J Ways of Seeing BBC/Penguin Books, 1973
* Stanos, N Concepts of Modern Art Thames and Hudson, 1981
Godfrey, T Drawing Today Phaidon, 1990
Whitford, F Exressionism Hamlyn, 1970
Cooper/Golding Cubism Faber & Faber, 1968
* Albers, J Interaction of Colour Y.U.P. 1975
Itten, J Elements of Colour Van Nostrand Rheinhold, 1973

* Dubery/Willetts Perspective & Other Drawing Systems Herbert Press, 1983
Hughes, R Shock of the New BBC, 1991
Elderfield, J Collage & Assemblage Museum of Mod. Art, 1992
* Waldman, Diane, Collage Assemblage & The Found Object Phaidon
* Mohr/Berger, Another Way of Telling, Granta.

* ESSENTIAL READING

School of Architecture and Interior Design
ARCHITECTURE DEGREE SCHEME

Module	AR105a
Subject	DESIGN STUDIES
Level	PRELIMINARY/LEVEL ONE
Duration	13 WEEKS
Workload	120 HOURS
Credit Points	15
Designation	REQUIRED FOR RIBA PART 1 EXEMPTION
Prerequisites	EVIDENCE OF 3D DESIGN ABILITY

ARCHITECTURAL DESIGN

Learning Objectives
Introduction to the Design Process: Understanding and Invention

The programme of study grounds a rigourous and inventive design process. It is intended to challenge the incoming students expectations about the process of designing architecture and to open up a much broader field of possibilities. The projects enable students to work freely within imaginatively scaled spaces represented through drawings and built artefacts. The programme introduces a range of skilling components which are built into the projects.

Syllabus
A series of short group and individual projects which are linked together to make up a design programme. The programme as a whole works with and relates analytical, interpretative and imaginative skills. The projects are composed to introduce and test a wide range of technical and expressive representational techniques and a variety of different working methods and evaluation procedures. The study areas covered by the projects include:

a. introduction to basic drawing, measuring and recording techniques including two dimensional orthographic projections, drawing to scale and draughting;
b. introduction to 'wet' modelling techniques based on mould making and casting in a variety of materials such as concrete, plaster, wax and paper;
c. introduction to history and theory of representation;
d. introduction to working with memory and imagination and their uses and representation within the design process;
e. introduction to working with maquettes and full scale objects;
f. introduction to situation, context and the concept of place and character.

Teaching and Learning Methods
The programme introduces the range of design teaching methods including lectures, workshops, classes, seminars, study visists, group and individual tutorials and a sequence of review

procedures.

Learning Outcomes
The student should be able to demonstrate:

a. skills in technical drawing, recording and measuring techniques;
b. skills in working creatively;
c. skills in making and working with a variety of media;
d. the ability to visualise ideas;
e. understanding of the mediating role of representational techniques in the design process;
f. ability to invent and demonstrate propositions which relate to specific contexts.
g. presentation skills in terms of verbal, written and drawn work.

Assessment
Project work is examined at the end of each project at hand in dates published on individual project timetables. Further assessments of groups of projects take place in portfolio at the end of each semester. The Portfolio must be appropriately ordered, edited and presented to demonstrate the learning process, the skills acquired and the propositions made. Work will be evaluated on the development and synthesis of skills and the understanding, creativity and energy demonstrated and represented. All three dimensional or dynamic work must be graphically presented through photographs or other records. Work must be titled and accompanied by short explanatory texts.

Advisory grades of component projects will be issued during the programme. The programme will be finally marked as a whole.

Indicative Bibliography
Arnason, H.H, History of Modern Art, 3rd Edition, Prentice Hall and Abrams, New York, 1990.
Frampton, K, Modern Architecture, A Critical History, Thames and Hudson, London, 1990.
Hughes, R, The Shock of the New, BBC Books, London, 1980.
Jones, E, Woodward, C, A Guide to the Architecture of London, Weidenfeld and Nicolson, London, 1983.
Rasmussan, S.E. Experiencing Architecture, MIT Press, Cambridge.
Rasmussan, S.E. London, The Unique City, MIT Press, Cambridge.

Staff
Design tutors and specialists.

School of Architecture and Interior Design
ARCHITECTURE DEGREE SCHEME

Module	AR106b
Subject	DESIGN STUDIES
Level	PRELIMINARY/LEVEL ONE
Duration	13 WEEKS
Workload	240 HOURS
Credit Points	30
Designation	REQUIRED FOR RIBA PART 1 EXEMPTION
Prerequisites	EVIDENCE OF 3D DESIGN ABILITY

ARCHITECTURAL DESIGN

Learning Objectives

Introduction to the concept of scale and use and construction of architectural space and form.

The programme of study introduces the scale and complexity of architectural space and built form. The programme enables the student to develop a range of skills in: basic planning and the manipulation of spatial sequences; the formation of spaces with specific qualities, character and dimensions; the identification of specific uses and interpretations of spaces and built form; establishing spatial hierarchies and working with concepts of private and public. The programme introduces a number of skills which are built into the projects.

Syllabus

The programme is composed of a sequence of projects including group and individual work. The projects involve the design of architecturally scaled elements, spaces and small buildings. The projects introduce the concept of the building programme and the development of simple briefs through which students are encouraged to chose, identify and work with their own ideas and interests, subject to the overall objectives of the projects. Areas of study include:

a. introduction to working with light and movement as a measure of space and its design;
b. introduction to composition, character and hierarchy of space and its design;
c. introduction to private and public uses of space and their design;
d. introduction to techniques of 'dry' model making;
e. introduction to perspective, three dimensional orthographic projections and draughting techniques;
f. introduction to programme (brief) writing and the determination and interpretation of uses and meanings of space and built form;
g. contextural analysis based on a town study.

Teaching and Learning Methods
The programme is taught through a wide range of methods including study visits, a town study, classes, lectures, workshops, seminars, group and individual tutorials and a sequence of review procedures.

Learning Outcomes
The student should be able to demonstrate:

a. skills in three dimensional and spatial drawing;
b. skills in drawing to scale;
c. skills in interpreting a brief;
c. skills in research, thematic and cultural studies;
d. skills in the design of spaces and resolving their character and hierarchy;
e. skills in proposing architectural designs which relate to an understanding of context;
f. skills in designing spaces appropriate to use;

Assessment
Project work is examined at the end of each project at hand in dates published on individual project timetables. Further assessments of groups of projects take place in porfolio at the end of each semester. The Portfolio must be appropriately ordered, edited and presented to demonstrate the learning process, the skills acquired and the propositions made. All three dimensional or dynamic work must be graphically presented through photographs or other records. Work must be titled and accompanied by short explanatory texts.

Advisory grades of component projects will be issued during the programme. The programme will be finally marked as a whole.

Indicative Bibliography
Arnason, H.H, History of Modern Art, 3rd Edition, Prentice Hall and Abrams, New York, 1990.
Frampton, K, Modern Architecture, A Critical History, Thames and Hudson, London, 1990.
Hughes, R, The Shock of the New, BBC Books, London, 1980.
Jones, E, Woodward, C, A Guide to the Architecture of London, Weidenfeld and Nicolson, London, 1983.
Rasmussan, S.E. Experiencing Architecture, MIT Press, Cambridge.
Rasmussan, S.E. London, The Unique City, MIT Press, Cambridge.

Staff
Design tutors and specialists

School of Architecture and Interior Design
ARCHITECTURE DEGREE SCHEME

Module	AR107ab
Subject	DESIGN STUDIES
Level	PRELIMINARY/LEVEL ONE
Duration	26 WEEKS
Workload	120 HOURS
Credit Points	15
Designation	REQUIRED FOR RIBA PART 1 EXEMPTION
Prerequisites	CO-REQUISITE MODULES AR105a AND AR106b

DESIGN DEVELOPMENT

Learning Objectives

Introduction to practical and technical skills in architectural design.

The programme of study enables students to thoroughly record, test and evaluate their design processes through exemplary studies of particular components of projects or design processes. The objectives of the programme are to develop the students range and in depth knowledge and understanding of recording techniques, and practical investigative and testing skills in both quantitative and qualitative terms.

Syllabus

The programme is organised in parallel with the studio projects which provide the material for the investigative and testing work. The main areas of study may include:

a. the accurate recording of the materials and construction of a built artefact or fragment of a building or building design through working drawings;
b. measured drawing of a building using surveying techniques and working in teams, and the individual production of accurate rendered scale drawings;
c. practical skills in recording, measuring and testing a particular environmental condition such a lighting;
d. specific modelling techniques for investigating and testing structural strength and stability through making structural models;
d. practical skills in investigating and recording through photography including basic skills in developing photographs, shooting under different lighting conditions and model photography;
e. skills in investigating and recording through sketchbooks using a range of techniques including diagrams, conceptual drawings, note taking, analytical drawings, study drawings and collecting information from visits to exhibitions, sites, buildings, town studies etc.

Teaching and Learning Methods
The programme is taught through lectures, classes, seminars, study visits, workshops and tutorials. Some components of the programme involve team work as a special skill.

Learning Outcomes
a. the development of a range of quantitative and qualitative skills in recording, investigating and testing design work;
b. an understanding of how materials and construction are represented through simple working drawings;
c. a practical understanding of surveying and measured drawing techniques;
d. a practical understanding of the design of particular environmental conditions;
e. a practical understanding of structural concepts;
f. practical skills in photography and reprographic media;
g. skills in recording on site material and thinking processes.

Assessment
Project work is examined at the end of each project at hand in dates published on individual project timetables. Further assessments of groups of projects take place in portfolio at the end of each semester. The portfolio must be appropriately represented in graphic form, ordered, edited and presented to demonstrate the investigative methods and the results. Work will be evaluated on its thoroughness, competency and technical skills, as well as on its ambition and resolution. The different components are weighted on a yearly basis depending on the requirements of the co-requisite design studies programme.

Indicative Bibliography
Arnason, H.H, History of Modern Art, 3rd Edition, Prentice Hall and Abrams, New York, 1990.
Frampton, K, Modern Architecture, A Critical History, Thames and Hudson, London, 1990.
Hughes, R, The Shock of the New, BBC Books, London, 1980.
Jones, E, Woodward, C, A Guide to the Architecture of London, Weidenfeld and Nicolson, London, 1983.
Rasmussan, S.E. Experiencing Architecture, MIT Press, Cambridge.
Rasmussan, S.E. London, The Unique City, MIT Press, Cambridge.

STAFF

Design tutors, technical tutors, workshop tutors, media services.

School of Architecture and Interior Design
ARCHITECTURE DEGREE SCHEME

Module	AR207ab
Subject	SUBJECT STUDIES
Level	ADVANCED INTERMEDIATE/LEVEL TWO
Duration	21 WEEKS
Workload	120 HOURS
Credit Points	15
Designation	REQUIRED FOR RIBA PART 1 EXEMPTION
Prerequisites	

EUROPEAN ARCHITECTURE

Learning Objectives

History of Modern Architecture and approaches to architecture and design history.

The programme of study is aimed at engaging the student with some of the complexities and paradoxes of architectural history, its multivalent character and ambiguities. At the same time students are asked to recognise the importance of the present in the understanding of the past, and the contributory or complementary role that history often plays in contemporary debates. Students are introduced to a range of ideological positions and the theoretical traditions which have shaped the use and interpretation of history in design and are encouraged to form a clearer understanding of their own standpoint in relation to these debates. Above all the programme seeks to foster a critically aware thinking and reading, and an understanding of the ideological landscape that surrounds us.

Syllabus

The programme of study consists of a lecture and seminar course. The lecture course introduces students to one of the key periods in Western cultural history. The focus initially is on the Italian Renaissance with a subsequent broadening out into other European countries. The lectures maintain a chronological thread but emphasise different issues through the period, of either contemporary or historical interest. The issues include: urbanisation, the emergence of the artist and theoretical discourses about art, classicism and the creation of cultural identities, and the relationship between town and country.

The seminar course deals with methodologies and ideologies in architectural and design history. It start with an analysis of the roots of 20th century historical thought in Marx and Hegel, and moves on to an introduction of more recent developments such as structuralism, feminism, and non-western approaches.

Teaching and Learning Methods
The programme is taught through slide lectures, seminars, study visits and tutorials.

Course Ouline: Lectures

SECTION 1: Architecture and Industrialisation, 1800-1880

1. Introduction: Historicism
This lecture will examine architectural theory in the first half of the 19th Century, and particularly the emergence of the Gothic Revival in England in response to industrialisation.

2. The Challenge of New Technology
This lecture will examine the achievements of Victorian engineering, and architectural responses to it, centred on the debate surrounding the Crystal Palace.

SECTION 2: The Search for a New Style, 1880-1920

3. The Arts and Crafts and the Garden City
Following on from the previous debate, we will examine how in the late Nineteenth Century there emerged an architectural strategy which was wholly anti-industrial, and anti-urban in character.

4. Architecture for the New Century: Art Nouveau and the Deutsche Werkbund
In contrast, this lecture looks at differing strategies which developed around 1900 for abandoning the constraints of historicism, and accommodating the demands of industrial production.

SECTION 3: The Modern Movement, 1920-1940

5. Modernism and Mass Production
In this class we will examine how in response to the devastation of the Great War, architects in central Europe turned to theories of industrial production as the basis of a new architecture, and we will look in particular at the great housing programmes of Weimar Germany.

6. The Machine Aesthetic
This lecture will examine the emergence in the 1920's of distinct aesthetic ideas within modern architecture which were to establish for it a clear formal identity. It will consider De Stijl, Constructivism, and the early work of le Corbusier.

7. Visions of the Modern City
Here we will engage with perhaps the most controversial strand of Modernist theory; the emergence of Utopian ideas about urban life, from Corb's Radiant City to Wright's Broadacre City.

8. The Modernist Diaspora: Design in England and Scandinavia

This lecture will examine the varying fortunes of Modernism in the 1930's, after its exclusion by both the Nazi and the Soviet states.

SECTION 3: The International Style, 1940-1970

9. Corporate Modernism; American Architecture and the Office Tower
This lecture will investigate the emergence of a distinct Modern Architecture in the USA, linked to the requirements of big business, and its international influence.

10. Architecture and Welfarism
This topic deals with the role of architecture in post-war reconstruction, and the attempt to implement the theoretical urban ideas of Corb, et al. It will use the British mass housing programme as a case study.

11. Design in the Space Age
In this lecture we will consider a variety of influences on post-war architecture, from mass culture to technology. In particular it will chart a new vision of technology from Buckminster Fuller, through the fantasies of Archigram, to the emergence of High Tech.

SECTION 4: Architecture after Modernism

12. The Challenge to Modernity; Post-Modern Theory
This lecture will deal with the challenge facing architecture following the collapse of Modernism, and the extreme diversity of alternative ideologies competing to fill the current vacuum.

13. The Post-Industrial City
The last class investigates one particular strand of current architectural theory dealing with the new kind of urbanism which appears to be emerging, particularly in the USA. It will consider the future possibilities for cities represented by such diverse models as Los Angeles, and the London Docklands.

14. Feedback session for Level Two History programme.

Learning Outcomes
a. an ability to construct clear argument;
b. an ability to analyse texts and secondary literature;
c. an ability to write a sustained piece of work in comprehensible English;
d. an ability to make a coherent verbal presentation to a group.

Assessment
The programme is assessed through an essay of 2000-3000 words on a topic from a list of questions based on the lecture series, a seminar presentation and a written summary of the presentation of 1500 words. The essay is evaluated on the depth of reading and

research; an understanding of the period; an analysis of the question and the development of an argument or an exposition in relation to it; clarity of thought and expression. The seminar presentation is evaluated on an understanding of the text and its argument; an ability to comprehend the wider implications of the text; an appreciation of the difference between a summary, an analysis or criticism of the text.

Weighting: essay 75/100 seminar 25/100
Hand in essay - week 16 seminar - week 23

Indicative Bibliography

Peter Burke The Renaissance, Macmillan Studies in European History Series, 1987
J. Summerson The Classical Language of Architecture, many eds.
Vasari Lives of the Artists, Vols I & II, Penguin, 1965 & 1987.
Alison Brown The Renaissance, Longman Seminar Studies in History, 1988.
Palladio The Four Books of Architecture, many eds.
Mark Girouard, Life in the English Country House, chps. 1-4, 1978
L. Benevolo, The Architecture of the Renaissance, Vols I & II, 1978.
E. Kaufman, Architecture in the Age of Reason, 1968
Arts Council, Le Corbusier: Architect of the Century, (1987)
Banham, R, Theory and Design in the First Machine Age, (1960)
Benevolo, L, History of Modern Architecture Vol 2 The Modern Movement, (1960: 1971)
Benton, T & C and Sharp, D, Form & Function, (1975)
G Ciucci, F Dal Co, M Manieri-Elia, M Tafuri, The American City: From the Civil War to the New Deal, (1980)
Curtis, W, Modern Architecture Since 1900, (1982)
Davis, M City of Quartz: Excavating the Future in Los Angeles, (1990)
Dixon & Methesius, Victorian Architecture, (1978)
Frampton, K Modern Architecture: A Critical History, (1980)
Harvey, D The Condition of Postmodernity, (1990)
Hitchcock & Johnson, The International Style, (1932, republished 1966)
Le Corbusier, Towards a New Architecture, (1927, etc)
Miller Lane, B Architecture and Politics in Germany 1918-1945, (1968)
O'Gorman, JF Three American Architects: Richardson, Sullivan and Wright, 1865-1915, (1991)
Pevsner, N Pioneers of the Modern Movement, (1936)
Riseboro, B Fantastic Form, (1992)
Saint, A Towards a Social Architecture, (1987)
Snodin, M, ed Karl Friedrich Schinkel: A Universal Man, (1991)
Sorkin, M Exquisite Corpse, (1991)
Swenarton, M Artisans and Architects: The Ruskinian Tradition in Architectural Thought, (1989)
Tafuri, M & Dal Co, F Modern Architecture, (1980)

Tafuri, M Architecture and Utopia, (1976)
Wilson, E The Sphinx in the City, (1991)

Staff

Joe Kerr, history and theory tutors

School of Architecture and Interior Design
ARCHITECTURE DEGREE SCHEME

Module	AR202ab
Subject	SUBJECT STUDIES
Level	ADVANCED INTERMEDIATE/LEVEL TWO
Duration	21 WEEKS
Workload	120 HOURS
Credit Points	15
Designation	REQUIRED FOR RIBA PART 1 EXEMPTION
Prerequisites	MODULE AR102ab OR EQUIVALENT

TECHNOLOGY

Learning Objectives
Intermediate level Structures, Environmental Design and Building Services.

The programme of study introduces the student to a broader range of technological issues and a more detailed understanding of performance criterior and measurement. The structures part of the course develops an understanding of structural concepts that may be used to express structural behaviour and performance. The environmental science part of the course develops an understanding of air, water and matter as mediums of environmental control through accoustics, ventilation, and heating and cooling design.

Syllabus
The programme of study is presented through two lecture courses, one on structures and one on environmental design. The structures course considers the apropriate structural concepts that may be used to consider structural behaviour and performance, especially those conditions that lead to the failure mode. The conditions that prevent failure are investigated through the use of materials, geometric form and stress patterns. These criteria are applied to different elements of structure including floors and roof slabs, columns, foundations and retaining walls and framed construction.

The environmental science course focuses on the mediums of air, water and matter in determining environmental conditions. The course covers: the basic principles of accoustics; air flow in buildings including the environmental limits of noise; sound analysis and measurement in accoustics; the theory of determining insulation standards for noise; natural and mechanical ventilation; heating and cooling; water supply; rain and waste water collection and disposal; humidity and condensation.

Teaching and Learning Methods
The programme is taught through lectures, demonstrations, and directed studies.

Learning Outcomes

a. a developed understanding and knowledge of structural design and analysis;
b. an understanding and knowledge of accoustic design, ventilation design, heating and cooling design, water based systems and the control of humidity and condensation;
c. ability to refer to texts and technical information in oreder to develop knowledge and understanding of technical issues;
d. an ability to analyse existing building performance.

Assessment

STRUCTURES

An illustrated report of a case study of the structure of a building or part thereof.

ENVIRONMENTAL DESIGN

An illustrated report of the acoustic analysis of a theatre or concert hall, etc.

SERVICES

An illustrated report on the input/output services of a building.

The programme is assessed through course tests.

Weighting: Structures 40/100 Environmental design 40/100 Services 20/100

Indicative Bibliography

McMullen, R Noise Control in Buildings BSP Prof. Books 1991

BBC Guide to Acoustic Practice BBC 2nd Edition 1990

CIBSE Code for Interior Lighting CIBSE 1984 London

Burberry, P Environment and Services Mitchells Construction Series 1988

Hall, F Building Services and Equipment Vols 1-3 Longmans 1986/87

Parkin P, Humphries H, and Cowell J Acoustics, Noise and Buildings 4th Edition, Faber 1979

J
Julian, W Lighting: Basic Concepts 4th Edition Dept. of Arch. Sci., University of Sydney, Aus, 1983

Chadderton D V Building Services Engineering Spon 1991 London

Morgan, W The Elements of Structure Pitman 1989

Smyrell A G Design of Structural Elements Vol 1 Longmans 1982

Cain J A & Halse R Structural Mechanics Macmillan 1990

Mosely W H & Bungey J H Reinforced Concrete Design 2nd Edition Macmillan 1982

Staff
Mike Wilson, Specialist Staff

School of Architecture and Interior Design
ARCHITECTURE DEGREE SCHEME:

Module	AR203ab
Subject	SUBJECT STUDIES
Level	ADVANCED INTERMEDIATE/LEVEL TWO
Duration	21 WEEKS
Workload	120 HOURS
Credit Points	15
Designation	REQUIRED FOR RIBA PART I EXEMPTION
Prerequisites	MODULE AR102AB OR EQUIVALENT

BUILDING STUDY

Learning Objectives
Building Study

The programme develops the student's understanding of building elements, materials and processes of fabrication and enables them to make a precedent study of a building using a number of alternative methods (options). The programme focuses on developing a wide range of research techniques, skills in reconstructing evidence and its presentation. It also demonstrates how precedent studies may be used to extend the student's knowledge and vocabulary and give a broader and more detailed understanding of the design of buildings.

Syllabus
The programme is developed in two parts comprising: The first hand study of a buiding and an overlapping, more extended, lecture course. The subject for study will be chosen by the student from a list of innovative London buidings. In each case the purpose of the study will be to describe and explain the building, to establish probably factors determining or influencing the design, and to communicate this information effectively. Students will investigate their building within a seminar group. The following disciplines will be employed:

1. Technology: investigating the material, structural, constructional, and environmental resolution of the design.

2. History: investigating the underlying philosophy of the design, within its theoretical and material context.

3. IT: developing computer based skills to investigate the design.

The lecture course will examine how buildings are put together and how that in turn affects our appreciation of them. Production methods and the principles and ideas underlying their

application will be discussed. The main categories of materials will be examined in detail, emphasizing their design potential and discussing currently available techniques for their use. Case studies will be used as illustration and for discussion.

Student work will comprise three phases:

1. Investigation - students visit and research their building and construct a computer model. Tutorial advice is available.

2. Analysis - the information gathered in phase one is presented and analysed within weekly seminar groups.

3. Development - the results of the second phase form the basis for a comparative study with another building. The comparison is to demonstrate an understanding of the lecture series.

Teaching and Learning Methods
The programme of study is taught through lectures, study visits, classes, workshops, seminars and tutorials.

LECTURE COURSE OUTLINE

Lecture 1 (27 Sep)
Body Language
The human body is a powerful source in design. Its potential may also charge our responses to things, spaces and buildings and, in particular, to the way they are put together.The path from Alberti to Renzo Piano involves some curious twists and transformations.

Lecture 2 (4 Oct)
Machine: Model or Metaphor?
Invernizzi's "Il Girasole" was a machine for living in: Le Corbusier's Maison La Roche is something else. How buildings are made and the ideas behind them may inform one another.

Lecture 3 (11 Oct)
Two Buildings: A comparison Kahn's Centre for British Art in Yale is compared with the Hayward Gallery.

Lecture 4 (18 Oct)
Impact of the Machine: Prefabrication
The hard landing at Ronan Point may have jolted our perception. We unearth some lost opportunities from the pitfalls in the factory floor and the system, finding Jean Prouve and the traditional Japanese House among the practicalities and the principles.

Lecture 5 (25 Oct)
Production Principles: Adding and Subtracting

Konrad Wachsmann's analysis of the building process subverts craft based categorization of technique according to the material employed. We adopt his alternative viewpoint to start our examination of how we make buildings.

Lecture 6 (1 Nov)
Production Principles: Forming
After completing our close look at process we discuss the legacy of Prouve and Wachsmann in the work of Foster's and Renzo Piano.

Lecture 7 (8 Nov)
Guts
Sandy starts our journey through the building fabric by illustrating how we can construct interior spaces. The unexpected choice of familiar materials and the blurring of the edge between what is building and what is furniture can promote an engagement between building and occupant.

Lecture 8 (15 Nov)
Muscle and Bone 1
The issue involved in bringing materials together is discussed. Unusual conjunctions bring unexpected problems and their solution demands a greater understanding of the nature and performance of the materials involved. The examples are of non-traditional construction involving strong materials but with varying strength characteristics. Understanding should not be difficult but demandsnds a degree of committment.

Lecture 9 (22 Nov)
Joints
How and when to make junctions between elements, assemblies and components are examined in detail. The issues of movement, deflection and tolerance are discussed and illustrated.

Lecture 10 (29 Nov)
Muscle and Bone 2
The issues raised in Lecture 8 are developed with traditional construction. Traditional details are very often quite subtle, making them easier to accept than to understand. It is hoped that an initiation into the non-traditional has helped to unveil most of the mysteries.

Lecture 11 (6 Dec)
Skin
The principles of curtain walling and cladding systems are discussed and illustrated.The issues of structural deflection, wind loading and cold bridging are discussed in detail.

Lecture 12 (3 Jan)
Transparency
The nature and properties of glass are outlined, giving

particular attention to those factors affecting its performance. Special glasses, surface treatments, lamination, thermal and acoustic performance are discussed. The priciples of window glazing, shopfront and roof glazing, glass block and glass lens construction are detailed and illustrated.

Lecture 13 (10 Jan)
Case Study: Maison de Verre
Chareau's modern classic is lovingly pawed over in an unashamedly tendentious way to illustrate many of the points raised in the course and as a preamble to Lecture 14.

Lecture 14 (17 Jan)
Debate: Material Authenticity
Does it matter how we make buildings, as long as they work and look good? The module staff will open the discussion by arguing differing, but not necessarily mutually exclusive points of view.

SEMINAR TIMETABLE

Week 1 and weeks 6-10
Monday afternoons 2.00-5.00pm
(PAN4: week 1 and weeks 17-19)

Learning Outcomes

a. a detailed understanding of materials and methods of fabrication and construction in building;
b. skills in research;
c. skills in observation and analysis;
d. an awareness of the variety of factors influencing the design of buildings;
e. an awareness of the skills required in resolving the complex issues involved in a building;
f. a knowledge and understanding of a range of different building precedents;

Assessment

1. A two dimensional image of a three dimensional computer model of the subject building at the end of phase 1.

2. An A3 format report comprising written and visual material describing and analysing the building at the end of phase 2.

3. An A3 format report comparing the original building with a second, designated building.

Weighting: Investigation/computer model 10/100;
Analysis Report 40/100 Comparative Study 50/100
Hand in - week 16 (week 28 for PAN4)

BUILDINGS FOR STUDY

FT Print Works (Grimshaw)
Finsbury Health Centre (Lubetkin)
Robin Hood Gardens (Smithsons)
Christ Church, Spitalfields,(Hawkesmoor)
Palm House, Kew (Burton)
Palace Gate (Wells Coates)
Soane Museum (Soane)
Royal Festival Hall (GLC)
Simpson's Department Store (Emberton)
Lloyds (Rogers)
The Ark (Erskine)
Rochester Place (Wild)
Mound Strand (Hopkins)

Indicative Bibliography

Strike, J Construction into Design, the Influence of New Methods of Construction on Architectural Design 1690-1990 London, Butterworth, 1991

ADDITIONAL READING

Alberti, LB On the Art of Building in Ten Books, Trans, from the Latin by J Rykwert, MIT, 1988
Hertzberger, H Lessons for Students in Architecture Rotterdam, Uitgeverij 010, 1991
Le Corbusier, Towards a New Architecture Trans, from the French by F Etchells, London, Architectural Press, 1946
Wachsmann, K The Turning Point of Building, Structure and Design Reinhold, 1961
Orton, A The Way We Build Now Van Nostrand Reinhold (UK), 1988
Bauchet, B Pierre Chareau: La Maison de Verre Japan, 1988
Seckler, E and Curtiss, W Le Corbusier at Work: The Genesis of the Carpenter Center for the Visual Arts Harvard, 1978

LECTURE TIMETABLE

Weeks 1-14
Monday 12.00 - 1.00
Room 227

School of Architecture and Interior Design
ARCHITECTURE DEGREE SCHEME

Module	AR204ab
Subject	DESIGN STUDIES
Level	ADVANCED INTERMEDIATE/LEVEL TWO
Duration	26 WEEKS
Workload	240 HOURS
Credit Points	30
Designation	REQUIRED FOR RIBA PART 1 EXEMPTION
Prerequisites	PASS OR EQUIVALENT IN AR105b

ARCHITECTURAL DESIGN

Learning Objectives

Architectural design with a special emphasis on conceptual skills and the development of a formal language.

The programme of study introduces conceptual and theoretical skills in architectural design and establishes the grounds of a formal architectural language and vocabulary. The programme includes projects and components of projects which increase the students capacity to address and resolve a broadening range of architectural problems in parallel to developing skills in representation.

Syllabus

The module is made up of a series of group and individual projects, or components of projects, which vary in scale and complexity. Different projects with different themes will be set within the vertical studios and projects within studios will vary from year to year.

The projects will develop and test the students ability to make staged architectural propositions which require analysis, invention and critical judgement. Each project will identify the particular issues which are to be investigated and used to generate the design proposals. The project briefs will specify the scale, complexity and extent of the required proposals and indentify the working methods and communication requirements. Issues used to generate design projects may include: specific user requirements; landscape or environmental concerns; urban contexts; reuse of existing buildings; architectural technology; building elements or materials; building typology; social needs; poetics of architecture (thematic studies); architectural texts or other approved material. The areas of study specifically include:

a. working with analytical skills;
b. working with conceptual skills;
c. the development of representational skills in drawing and modelling;

d. the development of skills in architectural design;
e. the development of architectural vocabulary and skills of expression;
f. lectures and seminars on design theory based on current work, precedents and texts.

Teaching and Learning Methods
The programme is taught through a wide range of methods including lectures, classes, lectures, workshops, seminars, study visits, group and individual tutorials and a sequence of review procedures. Special emphasis is placed on teaching students to describe and communicate their ideas and architectural vocabulary in verbal and written form in reviews and portfolio through lectures, seminars, group and review work.

Learning Outcomes
The student should be able to demonstrate:

a. skills in the analysis of project issues;
b. conceptual skills in generating and developing architectural propositions;
c. research and investigative abilities;
d. appropriate use of drawing and modelling techniques;
e. an increasing ability to design and resolve architectural propositions to scale and three dimensionally;
f. ability to appropriately describe and communicate ideas and architectural propositions graphically, in models, text and verbal presentation.

Assessment
The project work is examined in Portfolio and must be appropriately ordered, edited and presented to demonstrate the learning process, the skills acquired and the propositions made. All three dimensional or dynamic work must be graphically presented through photographs or other records. Work must be titled and accompanied by short explanatory texts.

Advisory grades of component projects will be issued during the programme. The programme will be finally marked as a whole.

Indicative Bibliography
Specific bibliographies will be determined by each studio on the basis of the project issues and working methods.

Staff
Design tutors, history and theory tutors and specialists.

School of Architecture and Interior Design
ARCHITECTURE DEGREE SCHEME

Module	AR205ab
Subject	DESIGN STUDIES
Level	ADVANCED INTERMEDIATE/LEVEL TWO
Duration	26 WEEKS
Workload	240 HOURS
Credit Points	30
Designation	REQUIRED FOR RIBA PART 1 EXEMPTION
Prerequisites	PASS OR EQUIVALENT IN AR105b

ARCHITECTURAL DESIGN

Learning Objectives

To develop architectural propositions which require planning skills and material resolution.

The programme introduces the problems of fully integrated design and develops the students capacity to tackle and resolve projects with complex programmatic, formal and technical requirements.

Syllabus

The module is made up of a series of group and individual projects, or components of projects, which vary in scale and complexity. Different projects with different themes will be set within the vertical studios and projects within studios will vary from year to year.

The projects will stretch the students ability and critical judgement in developing detailed project briefs in response to a wide range of cultural/social, contextural, material and environmental issues. The projects will introduce planning considerations arising out of specific sites and spatial requirements and demand the development of architecture propositions which are appropriate, integrative and sufficiently resolved. The projects will be developed in whole or part (depending on scale) up to a detailed level.

The project briefs will identify the particular issues which are to be investigated and establish the different requirements to be resolved within the design proposals. The project briefs will specify the scale, complexity and extent of the required proposals and identify the working methods and communication requirements. Issues used to generate design projects may include specific user requirements; landscape or environmental concerns; urban contexts; reuse of existing buildings; architectural technology; building elements or materials; building typology; social needs; poetics of architecture (thematic studies); architectural texts or other approved material. The specific areas of study include:

a. the introduction to skills in building programme development;
b. the development of planning skills;
c. the study of spatial requirements;
d. the study of contextural issues;
e. the study of structural, constructional and material issues;
f. the study of environmental considerations;
g. the integration of conceptual and spatial ideas with material and environmental considerations in the design of architectural propositions.
h. lectures, seminars and workshops on materials, construction and environmental issues appropriate to the projects. These may be based on precedent studies, theories of technical design and experimental or investigative studies.

Teaching and Learning Methods
The programme is taught through a wide range of methods including lectures, classes, workshops, se seminars, study visits, group and individual tutorials and a sequence of review procedures. Special emphasis is placed on teaching students to work in an integrated way through joint workshop and tutorial teaching from design and technical tutors.

Assessment
The project work is examined in Portfolio and must be appropriately ordered, edited and presented to demonstrate the learning process, the skills acquired and the propositions made. All three dimensional or dynamic work must be graphically presented through photographs or other records. Work must be titled and accompanied by short explanatory texts.

Advisory grades of component projects will be issued during the programme. The programme will be finally marked as a whole.

Learning Outcomes
The student should be able to demonstrate:

a. investigative skills in contextural analysis;
b. skills in researching programme issues;
c. skills in appropriate programme/brief development;
d. skills in planning;
e. skills in developing integrated design proposals;
g. skills in resolving detailed material, constructional and environmental considerations;
f. skills in describing and comunicating design proposals through appropriate conventions and media.

Indicative Bibliography
Specific bibliographies will be determined by each studio on the basis of the project issues and working methods.

Staff
Design tutors, technical tutors and specialists.

School of Architecture and Interior Design
ARCHITECTURE DEGREE SCHEME

Module	AR206ab
Subject	DESIGN STUDIES
Level	ADVANCED INTERMEDIATE/LEVEL TWO
Duration	26 WEEKS
Workload	120 HOURS
Credit Points	15
Designation	REQUIRED FOR RIBA PART 1 EXEMPTION
Prerequisites	CO-REQUISITE MODULES AR204a AND AR105b

DESIGN DEVELOPMENT

Learning Objectives

The role of the fabricated model and three dimensional computer model in the design process.

The programme of study examines in depth the role and uses of model making and/or three dimensional computer modelling within the design process. The students develop a series of three dimensional fabricated or computer generated models based on their project work. These are developed at a variety of scales using a range of materials and/or techniques. The models are used to investigate each major stage of the design process from conceptual models to large scale detail models.

Syllabus

The programme is organised in parallel with the studio projects which provide the material for the modelling work. The main areas of study are:

a. advanced workshops in 'dry' model making techniques;
b. advanced workshops in 'wet' model making techniques;
c. advanced workshops in computed based modelling techniques
d. conceptual models in a variety of media and techniques;
e. contextural models investigating landscape and topography and/or built context;
f. thematic or poetic studies in a variety of media or techniques which may be based on artefacts or abstract studies of formal and aesthetic qualities;
g. building study models at a variety of scales investigating issues such as massing, building elements, structure, spatial hierarchy and specific spatial and lighting conditions;
h. material models investigating qualities of materials, structure and construction. These models should be based on one area of a building and be developed at a large scale as appropriate to the project.

Students may elect to use fabricated models or computer generated models, subject to the constraints of the design studies programmes. The material models (h.) should be fabricated in

order to appreciate their intrinsic structural and material qualities.

Teaching and Learning Methods
The programme is taught through practical workshops and tutorials.

Learning Outcomes
a. a range of practical skills in fabricated and/or comuter aided modelling;
b. an understanding of the uses of modelling as an investigative tool at each stage of the design process;
c. an understanding of the appropriate use of models at different scales, in different media and using a range of techniques to enable investigation into different aspects of a design proposal;
d. an understanding of materials, structure and basic constructional techniques used in building as demonstrated through modelling;
e. the ability to develop and communicate design ideas through models;
f. the ability to appropriately present architectural propositions through models achieving high standards of quality and finish.

Assessment
The work is examined in Portfolio and must be appropriately reproduced in graphic form, ordered, edited and presented to demonstrate the design processes and the results. Work will be evaluated on its thoroughness, competency and technical skills, as well as on its quality, ambition and resolution.

Weighting: Material Model 40/100 Other models 60/100

Indicative Bibliography
Raker, D and Rice, H 'Inside Autocad' New Riders Publishing California 1989.

Modelshop II User manual, Paracomp.

Gable 4D Series User Manual, Gable 4D Series Ltd.

Bibliography issued by each Design Studio

Staff
Chi Roberts, Shama Rahman, design staff, technical staff and specialist tutors.

Evans, Robin, Architecture and the Three Geometries
Feher, Michel et al, eds, Fragments for a History of the Human Body: Parts One, Two, Three and Four, New York, Zone, 1989.
Focillon, Henri, Gothic Architecture.
Frampton, Kenneth, Modern Architecture, a Critical History, 2nd ed, London, Thames and Hudson.
Fry, Edward, Cubism, London, Thames and Hudson, 1978.
Giedion, Siegfried, The Eternal Present.
Heiddegger, Martin, Building, Dwelling, Thinking.
Le Corbusier, Towards a New Architecture, London, Architectural Press.
Lotz, Wolfgang, Studies in Renaissance Architecture, Cambridge Mass, MIT Press, 1981.
Mack, Robert, Experiments in Gothic Structure.
Summerson, John, The Classical Language of Architecture.
Tafuri, Manfredo, Architecture and Utopia, Design and Capitalist Development, Cambridge Mass, MIT Press, 1976.
Venturi, Robert, Complexity and Contradiction in Architecture.
Vidler, Anthony, The Writing on the Wall, New York, Princeton Univ Press, 1987.
Wittkower, Rudolf, Architectural Principles in the Age of Humanism.
Wolfflin, H, Rennaissance and Baroque.
Yates, Frances, The Art of Memory, Chicago, 1966.

Staff: Robert Harbison and the History and Theory Tutors

School of Architecture and Interior Design
ARCHITECTURE DEGREE SCHEME

Module	AR307ab
Subject	SUBJECT STUDIES
Level	FINAL
Duration	21 WEEKS
Workload	120 HOURS
Credit Points	15
Designation	REQUIRED FOR RIBA PART 1
Prerequisites	

ENVIRONMENT AND BUILDING LAW

Learning Objectives

1. To develop a strategic understanding of alternative environmental solutions to technical problems and an understanding of the inter-relationships between climate, building form and fabric, service systems and energy provision.

2. To develop an awareness, knowledge and critical understanding of the different types of technical and regulatory requirements affecting the performance of buildings in terms of their environmental conditions, materials and construction.

Syllabus

The programme is based around two lecture/seminar courses. The first brings together the different aspects of environmental design and emphasises the interconnected nature of design solutions in addressing climatic issues, service systems and energy provision. The course focuses on the different strategies and techniques used to both identify the major issues and solve technical problems. It examines criteria for establishing appropriate environmental conditions and how particular conditions might be met through alternative design solutions.

The second course is based on the regulations controlling buildings and introduces their rationale, objectives and specification. The course examines the performance requirements of the regulations in governing environmental conditions, materials and construction and safety issues. The course is illustrated by different examples of the use of the regulations in practice and introduces the student to their application in design.

Teaching and Learning Methods

The programme is taught through illustrated lectures which give an overview of the subjects; seminars and workshops that enable

the student to analyse, investigate and critically assess alternative solutions; tutorials.

Learning Outcomes
By the end of the module the student should be able to:

1. Demonstrate a knowledge and understanding of a range of environmental strategies.
2. Critically assess and select appropriate technologies to meet particular environmental performance criteria.
3. Demonstrate the ability to carry out a quantitative study of energy performance in building using manual or computer based methods.
4. Demonstrate an ability to select and refer to the relevant information and analytical methods.
5. Demonstrate an awareness of the requirements of building performance in terms of the building regulations.
6. Demonstrate a practical understanding of the influence of the regulations on the planning and general arrangement of the building.
7. Demonstrate an awareness of the role of the regulatory authorities in the administration and enforcement of the regulations.

Assessment
The environmental design course will be assessed through a written report on a quantitative study of the energy performance of a selected building using either computer or manual methods. The course on building regulations will be assessed through an illustrated case study analysing the effects of the technical and regulatory requirements on a design project for a building.

Weighting: Environmental Design and Services 50/100
Building Regulations 50/100

Hand in Environmental Design and Services - week 16
Building Regulations - week 23

Indicative Bibliography
BRE Digests, HMSO
Saxon, R Atria 1986
Little and Thomas Design and Energy Cambridge University Press, 1984
Patz and Steamers, ed. Solar Houses in Europe Pergamon, 1981
Proceedings of the Building 2000 Workshops Barcelona, 1988
Building Regulations HMSO, 1991
Town and Country Planning Act, HMSO 1980
Johnson, T Professions and Power Macmillan, 1972
Speaght, A and Stone, G AJ Legal Handbook Architectural Press
Elder AJ Guide to Building Regulations Architectural Press
RICS Party Wall Legislation RICS
Hopkinson, Petheridge, Longmore Daylighting, Heinemann 1966

Palz, Steemers Solar Houses in Europe, Pergammon 1981
BRE Condensation Digest 110
BRE Daylighting, Digest 309 and 310
BRE Daylighting and Lighting Controls, Digest 272
Condensation, BSS5259
Lighting, BSS8026
Window Design Guide, CIBSE, 1988
European Passive Solar Handbook, Batsford, 1992
Project Monitors: Passive Solar Buildings, EEC
Barcelona, Procedings of Building 2000 Workshops, 1988
BRE Good Practice Guide on Site Planning for Daylight and Sunlight, HMSO, 1991

Staff: Mike Wilson, Gordon Maclaren and others

School of Architecture and Interior Design
ARCHITECTURE DEGREE SCHEME

Module	AR304ab
Subject	DESIGN STUDIES
Level	ADVANCED FINAL/LEVEL THREE
Duration	26 WEEKS
Workload	240 HOURS
Credit Points	30
Designation	
Prerequisites	PASS OR EQUIVALENT IN AR205b

ARCHITECTURAL DESIGN

Learning Objectives

Architectural design with a special emphasis on conceptual skills and the development of a formal language.

The programme of study aims to develop and refine the students conceptual, theoretical and strategic skills in architectural design alongside their formal architectural language and vocabulary. The programme includes projects and components of projects which deepen the students understanding of, and capacity to resolve and represent, a wide field of architectural issues.

Syllabus

The module is made up of a series of group and individual projects, or components of projects, which vary in scale and complexity. Different projects with different themes will be set within the vertical studios and projects within studios will vary from year to year.

The projects will further develop and test the students ability to make staged architectural propositions which require analysis, invention and critical judgement. Each project should identify the particular issues which are to be investigated and used to generate the design proposals. The project briefs will specify the scale, complexity and extent of the required proposals and indentify the working methods and communication requirements. Issues used to generate design projects may include specific user requirements; landscape or environmental concerns; urban contexts; reuse of existing buildings; architectural technology; building elements or materials; building typology; social needs; poetics of architecture (thematic studies); architectural texts; architectural competitions or other approved material. The areas of study specifically include:

a. challenging conceptual, analytical and strategic issues;
c. appropriate and high quality representational skills in drawing and modelling;
d. complex theoretical and practical architectural issues of

architectural design;
e. the study of a developed architectural vocabulary and skills of verbal and written communication;
f. lectures and seminars on design theory based on precedents, current work, architectural theory and texts.

Teaching and Learning Methods
The programme is taught through a wide range of methods including lectures, classes, workshops, seminars, study visits, group and individual tutorials and a sequence of review procedures. Special emphasis is placed on teaching students to develop an effective and explicit architectural language.

Learning Outcomes
The student should be able to demonstrate:

a. a refinment of skills in the analysis of project issues;
b. a refinment of conceptual skills in generating and developing architectural propositions;
c. extensive research and investigative abilities;
d. judgement and critical ability in the appropriate use of drawing and modelling techniques;
e. ability to design and resolve high quality architectural propositions to scale and three dimensionally;
f. ability to describe and communicate fluidly and articulately ideas and architectural propositions graphically, in models, text and verbal presentation.

Assessment
The project work is examined in Portfolio and must be appropriately ordered, edited and presented to demonstrate the learning process, the skills acquired and the propositions made. All three dimensional or dynamic work must be graphically presented through photographs or other records. Work must be titled and accompanied by short explanatory texts.

Advisory grades of component projects will be issued during the programme. The programme will be finally marked as a whole.

Indicative Bibliography
Specific bibliographies will be determined by each studio on the basis of the project issues and working methods.

Staff
Design tutors, history and theory tutors and specialists.

School of Architecture and Interior Design
ARCHITECTURE DEGREE SCHEME

Module	AR305ab
Subject	DESIGN STUDIES
Level	ADVANCED FINAL/LEVEL THREE
Duration	26 WEEKS
Workload	240 HOURS
Credit Points	30
Designation	REQUIRED FOR RIBA PART 1 EXEMPTION
Prerequisites	PASS OR EQUIVALENT IN AR205b

ARCHITECTURAL DESIGN

Learning Objectives
Integrated architectural design

The programme of study enables the student to develop and demonstrate a refinement of control over the whole design process in the production of highly resolved and thoroughly presented architectural solutions which respond to diverse and complex formal requirements.

Syllabus
The programme consists of a major project and contains a number of component parts. Different projects with different themes will be set within the vertical studios and projects within studios will vary from year to year.

The project will enable students to refine and strengthen their ability and critical judgement in developing detailed project briefs in response to a wide range of cultural/social, contextural, material and environmental issues. The project will engage complex planning considerations arising out of specific sites and spatial requirements and demand the development of architecture propositions which are appropriate, integrative and well resolved. The project will be developed in whole or part (depending on scale) up to a detailed level to enable the study of the range of technical and environmental issues involved (design development module AR306B).

The project briefs will identify the particular issues which are to be investigated and establish the different requirements to be resolved within the design proposals. The project briefs will specify the scale, complexity and extent of the required proposals and identify the working methods and communication requirements. Issues used to generate design projects may include specific user requirements; landscape or environmental concerns; urban contexts; reuse of existing buildings; architectural technology; building elements or materials; building typology; social needs; poetics of architecture (thematic studies); architectural texts; competitions or other approved material.

The areas of study will include:

a. the detailed study and development of the programme content;
b. the refinement of planning skills;
c. the detailed study of spatial requirements;
d. the detailed study of contextural issues;
e. the detailed study of building use;
f. the detailed study of cultural implications;
g. the integration of conceptual and spatial ideas with material and environmental considerations.

Teaching and Learning Methods
The programme is taught through a wide range of methods including lectures, classes, workshops, seminars, study visits, group and individual tutorials and a sequence of review procedures. Special emphasis is placed on tn teaching students to work in an integrated way through joint workshop and tutorial teaching from design and technical tutors.

Learning Outcomes
The student should be able to demonstrate:

a. a refinment of skill in contextural analysis;
b. a refinment of skill and critical judgement in researching programme issues;
c. a refinment of skill in appropriate programme/brief development;
d. a refinment of skill in planning and resolving complex spatial requirements;
e. a refinment of skill in developing integrated design proposals;
f. well developed skills in describing and comunicating design proposals through appropriate conventions and media.

Assessment
The project work is examined in Portfolio and must be appropriately ordered, edited and presented to demonstrate the learning process, the skills acquired and the propositions made. All three dimensional or dynamic work must be graphically presented through photographs or other records. Work must be titled and accompanied by short explanatory texts.

The programme will be evaluated on the command of the whole design process, the quality of ideas and resolution in the final proposal and the fullness of its representation.

Indicative Bibliography
Specific bibliographies will be determined by each studio on the basis of the project issues and working methods.

Staff
Design tutors and specialists.

School of Architecture and Interior Design
ARCHITECTURE DEGREE SCHEME

Module	AR306ab
Subject	DESIGN STUDIES
Level	ADVANCED FINAL/LEVEL THREE
Duration	26 WEEKS
Workload	120 HOURS
Credit Points	15
Designation	REQUIRED FOR RIBA PART 1 EXEMPTION
Prerequisites	CO-REQUISITE MODULES AR304a AND AR105b

DESIGN DEVELOPMENT

Learning Objectives
Comprehensive design study

The programme of study develops an in depth understanding of one of the major design projects of the year and situates this understanding within the student's individual design philosophy and process. The programme develops the student's ability to examine a project comprehensively and in detail and demonstrate their integration of contextural, technical and environmental issues. The programme also develops their ability to articulate, describe and present their design philosophy, working methods, and cultural interests as an integrated whole.

Syllabus
The programme is organised in parallel with the studio projects which provide the material for a comprehensive design study. The main areas of study are based on:

a. a strategic understanding of all the different aspects of the major design programme and their inter-relationship including building use, context, construction, structure, materials, environment, cultural or social significance, precedents, formal qualities;
b. an in depth investigation of the constructional design of a building through drawings, diagrams and models demonstrating principles of design and detail design. The study should demonstrate a three dimensional understanding of how the building envelope could be achieved;
c. and stategic study of the structural approach used in the design using drawings and/or diagrams and/or models demonstrating structural principles with explanatory sketches;
d. a study of the materials proposed in terms of both constructional elements and as finishes to the building;
e. a strategic and diagramatic study of the environmental performance of the building addressing issues such as methods of environmental control, air distribution, daylight design and services;

f. the description of the key design decisions and their rationale;
g. the description of the overall design philosophy, working methods and cultural interests informing the project within the context of the portfolio as a whole.

The areas of study listed above will have different weightings according to the different design programmes run by the vertical studios. This will enable students to develop particular areas of interest in depth although all areas must be addressed to a minimum standard.

Teaching and Learning Methods
The programme is taught through lectures, classes, seminars, workshops, study visits and tutorials.

Learning Outcomes
a. an ability to think strategically and control the relationships between complex and diverse requirements;
b. the ability to sustain a coherent design philosophy and develop it through every aspect of a design proposal;
c. technical competence in understanding and demonstrating the basic technology of the proposed building;
d. a high level of competence in investigative and research techniques in particular aspects of the design process;
e. an advanced level of three dimensional understanding of the relationship between the spatial configuration and the building elements;
f. an in depth understanding of at least one of the major areas of technical design;
g. a developed understanding of the design process and a capacity to articulate the design approach as a whole and the major concerns or interests directing it.

Assessment
The project work is examined in Portfolio and must be appropriately represented in graphic form, ordered, edited and presented to demonstrate the the different investigations and their integration within the project design. Work will be evaluated on its thoroughness, competency and technical skills, and on its quality, ambition, resolution, coherence and overall integration.

The weighting of the different components will be established within the different studios on a yearly basis.

Indicative Bibliography
Bibliography issued by each Design Studio

Staff
Design tutors, technical tutors and specialist consultants.