# Gungahlin Senior College
# ACT | Australia

## 01
### Specifications

Client: Munns Sly Moore
Year: 2010
Location: Gungahlin, VIC
Budget: $67m
Area: N/A
Year Levels: 10-12
Students: 950
Architect: Munns Sly Moore & Williams Boag

Photo 1| Aerial View Gungahlin Colleg
Source: Munns Sly Moore

Award
CEFPI Australasia Educational Awards 2012 Overall Winner Best Project, Winner New Construction : Entire New School.

## 02
### Overview

Gungahlin College is a new secondary college co-located with the Canberra Institute of Technology (CIT), a new Community Library and a Town Park. The intention of this project was to create a flexible environment to facilitate modern teaching and learning, "…creating a model for education in the ACT" and "setting a standard for modern quality education in Australia."

NLE was appointed as the educational planner for this project working along side Munns Sly Moore to deliver a rich learning environment that facilitates quality teaching and the best possible student outcomes. The design of the College allows for connected, interdisciplinary-based study and a client centred, collaborative approach to learning that supports the ACT's curriculum and its associated assessment structures.

## 03
### Process

NLE was responsible for the ongoing educational planning, commencing with an Educational Specification and then consistently applying that vision throughout the design process. Pedagogy Space Maps were used to demonstrate how the plans respond to the educational objectives. Based on documentation provided by the Department of Education and several stakeholder consultation workshops, a series of educational planning principles were developed. These were continually applied to emerging designs using weighted evaluations of design responsiveness to the criteria of each principle. A timetable study was also conducted to ensure the design would support comprehensive curriculum delivery.

## 04
### Outcomes

Learning & Teaching
Gungahlin College's learning environments provide choices. Learners and teachers can work together to select and manipulate environments to suit their needs. The spaces have been designed to connect, extend and integrate learning experiences. People, resources, technologies and spaces will work together to help learners achieve success and to build a positive relationship with learning that will be lifelong. The learning spaces offer flexibility which encourages self-directed learning and allows teachers to regularly and effectively practice team-teaching and facilitate trans-disciplinary activities. An increase in collaborative areas will support problem, project and inquiry-based learning. Informal and social learning will encourage heterogeneous interaction to promote inclusivity and the appreciation of diversity in order to shape a 'community of learners'.

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## 04
### Outcomes

Distributed Resource Nodes

Resource-based learning is supported by distributed resources, an approach that views the entire campus as a library. This includes the use of information and communication technologies as essential resources for learning in the 21st century. ICTs are not an isolated component of learning at Gungahlin College; they have been integrated into the design in an effort to harmonise technology with the spaces and the people that inhabit them.

CDIO

Conceive, design, implement and operate (www.cdio.org) is the concept leading the design of Gungahlin College's 'specialist spaces' (i.e. those requiring specific equipment in laboratories, workshops or studios). CDIO is used to encourage process based learning, using spatial cues to foster specific thinking and behaviours during each of the four stages and, in doing so, develop an appreciation of the 'process' as being equally important to the outcome.

With the exception of the Conceive and Operate spaces, which can exist in a variety of locations and are dependent on the needs of the subject matter, the other spaces are within close proximity to one another to allow a cross-fertilisation of ideas and support movement as a result of trial and error of ideas and applications.

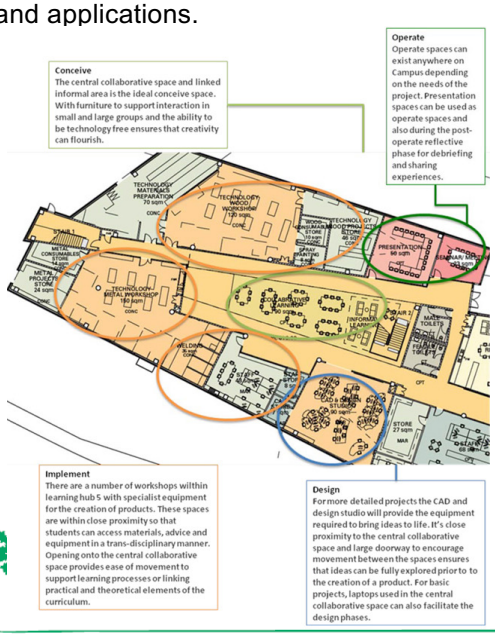



Photo 2| CDIO Space Map
Source: NLE

## 04
### Outcomes

CDIO Cont'd

Conceive:
- Allows students to envision new systems, understand user needs, develop concepts.
- Emphasises reflection
- Reinforces human interaction – talking and thinking
- Largely a technology free zone
- Linked to a library/resource centre

Design:
- Support a new paradigm of cooperative, digitally supported design
- Allows students to design, share designs, and understand interaction
- Central room and team breakout rooms
- IT accessible from student living groups
- Keep design space near build space to reinforce connection

Implement:
- Allows students to build small, medium and large systems
- Mechanical, electronic, specialty fabrication, visible to students and visitors
- Software engineering and integration
- Safe, yet accessible as much as possible during 'student hours'

Operate:
- Create opportunities for students to learn about operations
- Operate their experiments and projects
- Operate facility class experiments
- Simulated operations of real systems
- I-lab links to real systems.

# Space Types

The College offers a variety of learning spaces.
The following pages aim to describe their intended purpose and locate these spaces within the building. The overarching space type is the Learning Hub, which comprises of the following key spaces:
Collaborative General Learning Spaces
- Specialist Spaces
-Presentation Spaces
-Resource Nodes and
-Other.

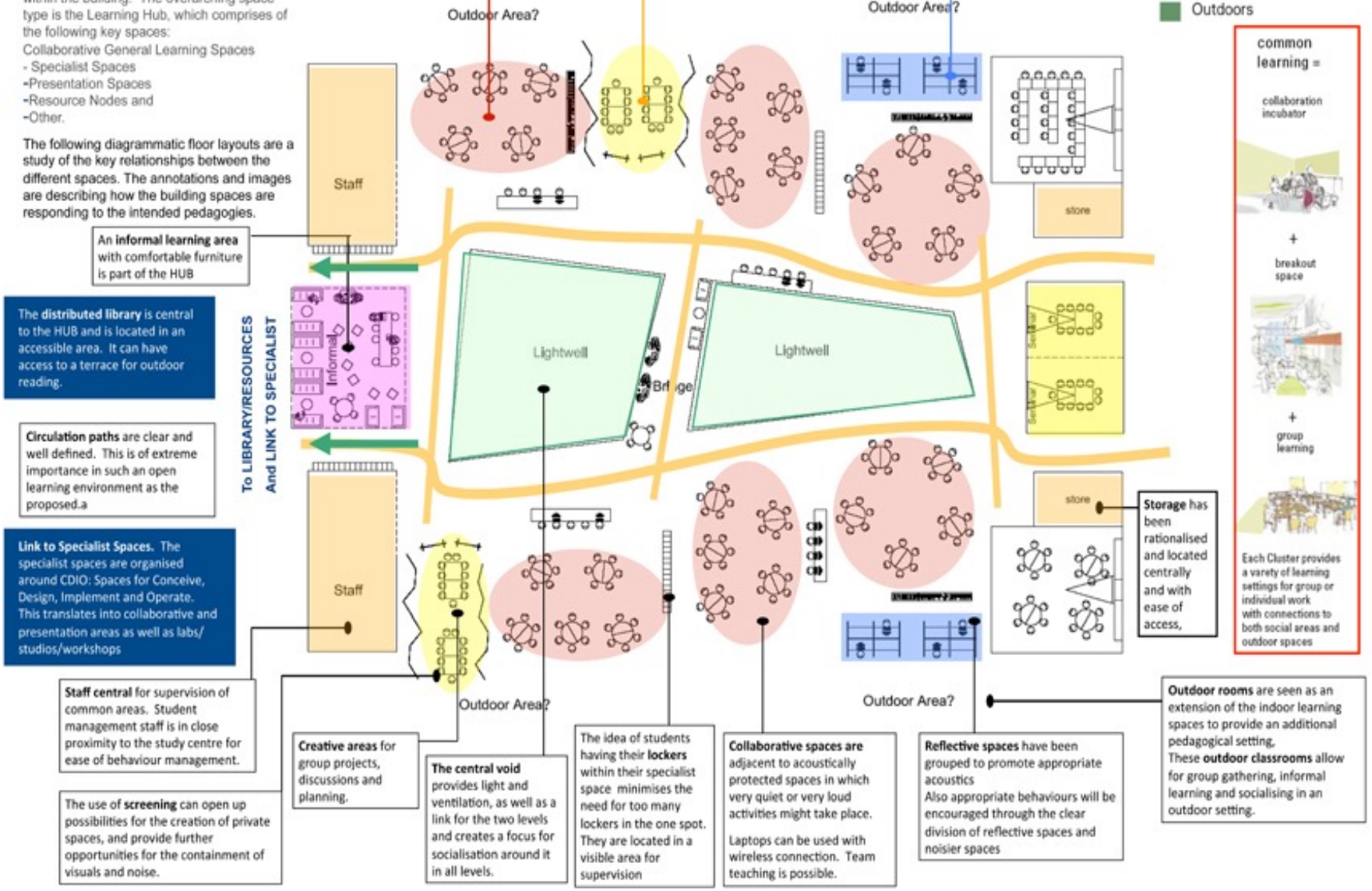
The following diagrammatic floor layouts are a study of the key relationships between the different spaces. The annotations and images are describing how the building spaces are responding to the intended pedagogies.

**INTERACTIVE**
- Space for more social and interactive learning
- Team teaching
- Larger groups
- Open space

**CREATIVE**
- Space for processing information
- Space for making things in small groups
- Problem, project, resource – based learning

**REFLECTIVE**
***Personal space***
- Individual quiet working
- Computing, reading
- Small group 1-3 students
- Literacy or collaborative work

Interactive
Creative
Reflective
Social Informal
Outdoors




common learning =

collaboration incubator

+

breakout space

+

group learning

Each Cluster provides a variety of learning settings for group or individual work with connections to both social areas and outdoor spaces

An **informal learning area** with comfortable furniture is part of the HUB

The **distributed library** is central to the HUB and is located in an accessible area. It can have access to a terrace for outdoor reading.

**Circulation paths** are clear and well defined. This is of extreme importance in such an open learning environment as the proposed.a

**Link to Specialist Spaces.** The specialist spaces are organised around CDIO: Spaces for Conceive, Design, Implement and Operate. This translates into collaborative and presentation areas as well as labs/ studios/workshops

**Storage** has been rationalised and located centrally and with ease of access,

**Staff central** for supervision of common areas. Student management staff is in close proximity to the study centre for ease of behaviour management.

The use of **screening** can open up possibilities for the creation of private spaces, and provide further opportunities for the containment of visuals and noise.

**Creative areas** for group projects, discussions and planning.

**The central void** provides light and ventilation, as well as a link for the two levels and creates a focus for socialisation around it in all levels.

The idea of students having their **lockers** within their specialist space minimises the need for too many lockers in the one spot. They are located in a visible area for supervision

**Collaborative spaces are** adjacent to acoustically protected spaces in which very quiet or very loud activities might take place.

Laptops can be used with wireless connection. Team teaching is possible.

**Reflective spaces** have been grouped to promote appropriate acoustics
Also appropriate behaviours will be encouraged through the clear division of reflective spaces and noisier spaces

**Outdoor rooms** are seen as an extension of the indoor learning spaces to provide an additional pedagogical setting,
These **outdoor classrooms** allow for group gathering, informal learning and socialising in an outdoor setting.

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NEW LEARNING ENVIRONMENTS

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## 04
Outcomes

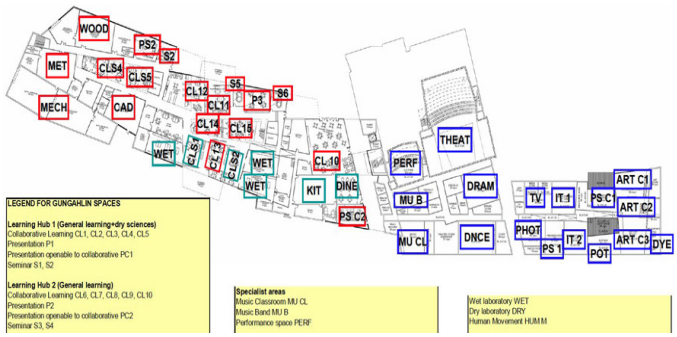
04
Outcomes

Timetable Analysis

When a new model for learning and teaching is sought, there is an implicit risk as there are no previous existing facilities to serve as precedents. In this case we needed to make sure that the intended curriculum could be delivered within the new spaces. An additional issue was that there was no clarity on the curriculum before the design process, as it was a new school. However there were key areas such as the sciences and the arts and performing arts that the Department was keen to pursue more intensively.

Our solution was to use the timetable of 3 other colleges, similar in size and/or curriculum, and map their courses within our proposed facilities.

This exercise highlighted some issues of both under and over provision of certain space types, which in turn gave the team the opportunity to come up with some compromises and assumptions in how the learning would happen. For example, the use of some general learning spaces for some of the courses that are digitally based, through the use of laptops (digital rooms seemed to be booked out on many lines) and the possible double up of the dance space as a drama rehearsal space (they never were used at the same time).



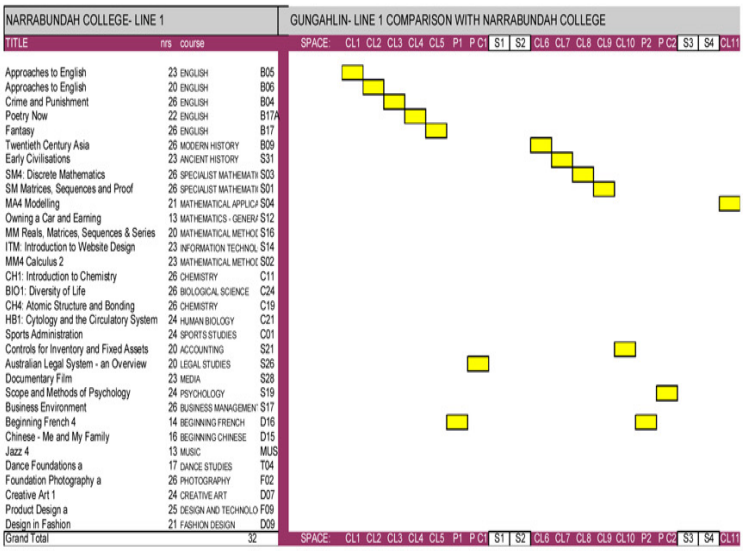




Photo 3| Timetable Analysis
Source: NLE