

## PLANNING

### 1. GLOBAL PLANNING

Activity	Priority	Duration	Done by
Prove isomorphism between theories and algebras	High	2 weeks	November 3
Polish code and do write-up	High	1 week	November 10
Research and write-up for category of retracts	Middle	2 weeks	November 24
Formalization of category of retracts	Middle	2 weeks	December 8
Polish code	Middle	1 week	December 15
Formalization of isomorphism between $U_A$ and $\Lambda_A$	Middle	1 week	December 22
Write-up and polishing	Middle	1 week	December 29
Christmas	High	2 weeks	January 12
Unforeseen problems	High	3 weeks	February 2

### 2. ISOMORPHISM

1/2 day	Initiality of $\Lambda$
1/2 day	The functor from lambda theories to $\Lambda$ -algebras
1/2 day	Definition of the presheaf category
1/2 day	The object $A(1)$
1/2 day	Exponentiability of $A(1)$
1/2 day	$A(1)^{A(1)} \cong A(2)$
2 days	Isomorphism between $L$ and $E(A(1))$
1/2 day	Faithful functor
1/2 day	Induced functor on presheaf categories
1/2 day	Preserves products
1/2 day	Map from $E(A(1))$ to $E(A'(1))$
1/2 day	Map equals $f$ , so functor is full
<b>7 1/2 days</b>	